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# EDITORIALS

A CONTROVERSIAL article recently appeared in the scientific section of another state medical journal within a summary of so-called Recent Advances in the specialties.

## *Let's Do It*

## *The Hard Way—*

A paragraph stated "Benign nevi on the face can be removed with a dermal punch and the defect replaced with a graft taken with the same sized punch. After six weeks the graft and adjacent margin are abraded. After the area is epithelialized the site of the graft is rarely detectable." Imagine a skin graft the size of a dermal punch! Indeed, it should comprise a new type "beauty mark" with its circumferential scar surrounding a cutaneous graft of questionable color and quality, if any, and then another operation to abrade it. The defect would probably heal in spite of it, but what a complex means toward a small and unpredictable end result.

Speaking then of destruction of superficial malignant tumors by means of zinc chloride paste, the author states: "The specimen of tissue is cut into squares of 1 cm. and a stained frozen section made of each square. The microscopic findings of each section are mapped in an enlarged outline of the lesion on paper. With this map as a reference, the paste is reapplied to those areas which are not cancer free and this procedure is repeated daily until all sections are free of cancer." After describing the healing, which required at least five weeks, he stated that over 165 frozen sections were required. He must have time on his hands and more patience than patients; and the term "surgery" is loosely applied to use of the punch, to sandpaper and wire brushes, and even to chemical destruction.

And, incidentally, if you have occasion to cut a dog's tail off, be sure to do it a little bit at a time so it won't hurt so much!

THIS question is summarized in a splendid editorial in the November, 1956, issue of the Journal of the Arkansas Medical Society; its author is Dr. Alfred Kahn, Jr. We

## *Social Security*

## *For Physicians—*

take pleasure in quoting it in full, believing that it clarifies this controversial problem as

it concerns our profession:

All physicians need certain insurance protection. An important facet of this is the matter of old age retirement and survivor income. For many years now it has been debated whether it's desirable for physicians to have this coverage through Government Social Security. In a series of articles, the Journal of the American Medical Association, (Vol. 162, p. 231, 1956), has pointed out the fallacy of the Government Social Security Program that would be offered to physicians.

In one of the articles, the authors have pointed out the government program is not insurance. When you buy insurance, you get a contract setting forth the benefits, and the moneys collected as premiums have to be handled in accordance with certain prescribed regulations. The Social Security Program has collected moneys and then so-to-speak used the moneys in such a manner as to be unable to meet actuarially the benefit obligations that may arise.

Thus Social Security is a program which in the fair sense of the word is not insurance but a tax program. Because of the manner of handling the collected funds, this taxation may become inadequate to pay current benefits and it is inevitable that several things would result. First, future generations will have to pay for our old age benefits and/or secondly, the social security tax will have to be increased; the latter could be accomplished by an increase in tax rate or tax base.

Think of buying insurance at a set premium and then having your rate increased without your approval. If this occurred with private insurance, it is quite likely the insured would elect to drop the insurance. If private physicians become part of the social security tax program, it is unlikely that the physician would be permitted as an individual to stop paying this tax. As noted above, this would be particularly unpalatable if the tax rate or tax base were increased.



The Social Security benefits survivors under certain circumstances. For your survivors to get maximum benefits, you must have paid maximum social security taxes for eighteen months. If your widow remarries, she does not get further benefits until she reaches 65 years. A surviving child's benefits stop if he marries or when he reaches 18 years. When a widow's youngest child reaches 18 years, benefits to her stop until she is 65 years. If you have no children your widow does not receive benefits until she reaches 65 years of age.

To obtain retirement benefits certain stipulations have to be met. You must be 65 years of age; statistically the younger you are (and the longer you will pay taxes) the less chance you have of surviving to 65 years; one out of every three 45-year-old physicians will fail to live to 65 years but a 60-year-old man has 85 per cent chance of surviving to 65 years. Should you survive to 65 years, you must earn less than \$2,081.01 per year in order to collect benefits, but currently only one doctor in seven of the 65-75-year age group is retired.

Appropos of death and disability benefits at the national level, beginning January 1, 1957, Old Age and Survivors Insurance (OASI) taxes will be increased one-quarter of one per cent for employers and employees and three-fourths of one per cent for the self-employed. This is the result of passage by the Senate of H.R. 7225 by a 47-45 vote last July 17. Doctors of Medicine are now the only professional group not covered, which conforms to the wishes of the A.M.A. as reaffirmed by its House of Delegates last June. We have reason to be alarmed by amendments to the Social Security Act and Federal encroachment on medical practice. What price security — when cash for disability and lower retirement age proffer economic catastrophe and, even more significant, moral decadence?

WITH this first issue of our fifty-fourth annual volume and with a Happy New Year to all, the Rocky Mountain Medical Journal proudly announces the selection by three of

### **Editorial and Staff Changes**

our states of four new members of our Editorial Board and Staff. At the same time we repeat an affectionate adieu to three who served this publication faithfully for many years.

James R. Leake, M.D., of Littleton was appointed last month as Assistant Scientific Editor, by action of the Board of Trustees of the Colorado State Medical Society. Effective with this issue, he will assist Dr. Macomber in the general supervision of our editorial and scientific sections and in editing articles which originate in Colorado. He takes the place that had been vacant since last August due to the sad passing of Lyman W. Mason, M.D., who had been Editor-in-Chief during World War II and Associate Editor ever since.

Wilbur A. Armstrong, M.D., of Billings was recently named Scientific Editor for Montana by the Montana Medical Association's Executive Committee. He succeeds Raymond F. Peterson, M.D., of Butte, who resigned in September due to the increasing pressure of responsibilities to boards and committees of the American Medical Association and national specialty societies. Dr. Peterson had been Montana's Editor since Montana joined this Journal in 1947.

The appointment of Aaron Margulis, M.D., of Santa Fe as Scientific Editor for New Mexico was first announced in our Organization Section at the time the Council of the New Mexico Medical Society selected him last summer, but deserves repetition now. He succeeded Carl Gellenthien, M.D., of Valmora, who retired from the editorship after twelve years of service.

Completing the changes is the addition of Mr. John Pompelli of Denver as Assistant Managing Editor. Already Executive Assistant to Mr. Sethman in the latter's capacity as Executive Secretary of the Colorado State Medical Society, Mr. Pompelli is now also relieving him of much of the publication details of this Journal, which is happily experiencing a steady and rather rapid growth.

As did their predecessors, your new staff members pledge their best efforts to present an ever improved Journal devoted to the scientific and organizational advancement of the medical profession throughout our great Rocky Mountain region.

And this is a good time to remind contributors always to submit articles to their own state's Editors as listed on Page 2.

# ARTICLES

## *Atomic Energy Activities of Medicine And Medical Research\**

Charles L. Dunham, M.D.  
WASHINGTON, D. C.

*Here is challenging light upon the tools and by-products of atomic energy and their impact upon medical science.*

FOR the first forty years following discovery of radioactivity by Becquerel the medical applications of this phenomenon were of two general kinds. There developed promptly a widespread use of the penetrating properties of x-rays for diagnostic purposes. More gradually and to a considerably lesser extent the direct damaging effect of ionizing radiations on living tissues and organisms were taken advantage of in treatment of malignant disease. A limited number of applications was made in other fields of medicine, as in the indirect treatment of ringworm of the scalp in youngsters. In the experimental laboratory these radiations were used as experimental tools, especially in the field of genetics, beginning in the middle twenties. There was one striking exception to these generalizations. In 1923 Hevesy in Denmark used a naturally occurring radioactive isotope of lead to study by analogy certain facets of calcium metabolism in plants. He thus established the basic principles for use of radioactive elements as tracers in elucidation of biologic processes.

In 1934 Joliot and Curie reported the first successful production of radioactive elements artificially. They bombarded with alpha particles natural boron containing

boron 10 and natural aluminum, aluminum 27 which yielded nitrogen 13 and phosphorus 30 respectively, both short lived positron emitters. It remained then for Ernest Lawrence to invent the cyclotron, a much more powerful and flexible source of high energy particles than had hitherto been available. A considerable variety of radioactive isotopes could now be produced in quantities sufficient to explore their potential value in medicine as therapeutic agents and as tools in the study of metabolic processes. In 1936 John Lawrence first administered an artificially produced radioactive isotope to a sick human being with the express purpose of treating his disease. This event marked a milestone in the practice of medicine.

Since then the therapeutic uses of artificially produced radioisotopes, whether administered internally or used as a source of high energy gamma rays in teletherapy, have been in the limelight. Preoccupation of the medical profession and the public at large, with the urgent need for more effective ways to treat cancer, has largely been responsible for this. Nevertheless, diagnostic uses of radioisotopes already bid fair to outstrip the therapeutic uses. Day to day use of radioactive tracers in fundamental research into the nature and causation of disease, though not publicized to the degree that the therapeutic uses now are, far ex-

\*Presented before the 10th Annual Rocky Mountain Cancer Conference, Denver, July 12, 1956. The author is Director, Division of Biology and Medicine, United States Atomic Energy Commission.

ceed in variety and perhaps in eventual importance the diagnostic and therapeutic applications.

With the close of World War II and the ready availability of large quantities of neutrons as atomic reactors, the stage was set for full exploitation of radioisotopes in medicine, biology, agriculture and industry. Prior to the war only biomedical scientists who were fortunate enough to be associated with universities at which there were high energy accelerators in operation were privileged to have radioisotopes and then only in limited quantity as cyclotron time could be made available for their production by physicists. On August 2, 1946, the first shipment of reactor-made radioisotopes was sent out from Oak Ridge. This signaled the present era of freely available artificially produced radioisotopes at reasonable cost to all comers who could demonstrate that they could use these new tools safely. By January 1, 1955, there had been 64,202 shipments of radioisotopes amounting to a total of 54,728 curies of radioactivity. In the same period of time forty-six nations outside the United States had received 3,173 from this country alone. What is being done with these isotopes? This is not the occasion to discuss the industrial and agricultural uses, exciting as some of these are, especially in the field of agriculture where the science of fertilizers is advancing by leaps and bounds in the wake of tracer studies with radioisotopes.

First, let us consider what is being done with radioisotopes in treatment and diagnosis of disease. Radiation therapy has until recently been pretty much the sole province of the radiologists who have reluctantly tolerated encroachments by a few genito-urinary specialists, gynecologists and dermatologists. With radioisotopes freely available just about everybody is getting into the act. Internists are using P 32 and other radioisotopes to treat a variety of blood dyscrasias, polycythemia rubra vera, certain leukemias and less effectively some lymphomas. They use radioiodine to diagnose various thyroid states and to treat hyperthyroidism and appropriate cases of thyroid cancer. They use I 131 to destroy the thyroid gland in order to control intractable

angina pectoris, and selected cases of chronic congestive heart failure. Recently a similar approach seems to be proving helpful in cases of advanced emphysema. Radioiodinated human serum albumen is finding daily use in blood volume and cardiac output studies. Radioiron, Iron 59, is used to determine the status of the red blood cell formation function of bone marrow while chromium 51 is used to tag red cells for measuring the red cell mass. A simple test for absence of the "intrinsic factor" in pernicious anemia consists in administering cobalt 60 labelled vitamin B-12 by mouth and checking for radioactivity in the urine. Radioactive iodinated Rose Bengal appears to be many times more sensitive as a test for liver function than bromsulphthalein. For palliative treatment of generalized carcinoma of abdominal or thoracic cavities, radiogold and radioactive chromic phosphate are effective in reducing fluid accumulation in an appreciable proportion of cases.

Neurosurgeons are finding radioactive iodinated human serum albumen and radioarsenic important tools in diagnosis and localization of brain tumors. They have also used radioisotopes to study dynamics of the cerebrospinal fluid and intricacies of mechanisms involved in the blood brain barrier.

Ophthalmologists find radiostrontium applicators useful in treating benign growths of the sclera and P 32 has been found helpful in some clinics for localizing and in the diagnosis of intraorbital tumors.

Plastic surgeons use radiosodium to determine adequacy of blood supply in pedicle skin grafts. Genito-urinary surgeons use radiogold for interstitial treatment of prostatic cancer, and radiogold and other isotopes to treat bladder cancers. Some general surgeons today cannot bring themselves to close the incision on an inoperable abdominal cancer without either squirting some short-lived radioisotope into the tumor or sewing into the tumor hollow threads containing the isotope. Similarly there are those who treat cancer of the cervix with radiogold interstitially.

In experimental studies aimed at controlling disseminated metastatic cancer by de-

struction of the pituitary gland, implantation of radioactive materials in the gland has been used by some as a substitute for precise surgical removal. Meanwhile at Berkeley they are using the proton beam from the large cyclotron to accomplish the same result bloodlessly.

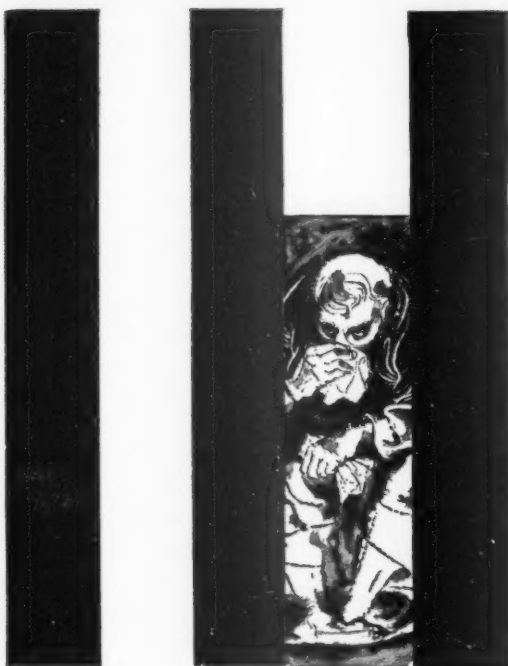
I have by no means exhausted the uses to which radioisotopes have been put in the practice of medicine, but I have given you an idea of their variety. Whereas, to some, these applications seem to have been slow in getting under way, I feel we may be approaching a time when we shall have to worry about fadism. There is already a tendency to do some things with radioisotopes just to show that it can be done that way whether or not isotopes constitute the best and simplest approach to the problem.

Diseases of "maturity" become increasingly important as methods for control of infectious diseases are more effective. Precise knowledge of various disturbances of carbohydrate, lipid and protein metabolism, little understood today, will bulk large in our efforts to control atherosclerosis, hypertension and perhaps even neuropsychiatric disorders. Many laboratories are well along in such studies using radioactive isotopes incorporated into organic compounds. As metabolic defects are pinpointed there is reason to believe that diagnostic tests will be devised using these same techniques which will permit of early recognition and correction of the defect before irreparable damage has occurred. We have seen what can be done with iodine 131 alone or in labelled compounds to detect aberrations of thyroid gland activity. Carbon 14 and tritium are the isotopes most likely to be most useful in the future. Unfortunately, their beta radiations are of relatively low energy and not so readily detected as gamma rays from iodine 131 or beta radiations from phosphorus 32. Furthermore for such studies and tests to be undertaken safely in relatively normal human beings the amount of these isotopes introduced into the body at one study or test will have to be limited. This means that more conventional and standardized methods of counting will be superseded by more sensitive methods such as developed by Dr. Willard Libby for de-

tecting radiocarbon and radiostrontium. I am confident it will be only a few years before such tests can be carried out in medical school laboratories and eventually in the doctor's office. The methods are known. It only remains for improved and relatively inexpensive and reliable instruments to be developed before we can move ahead in this work. Meanwhile basic research with radioactive tracers in animal experiments has become a commonplace in fields of nutrition, pharmacology, cancer research, carbohydrate lipid and protein metabolism, microbiology, immunology and fundamental biochemistry.

One of the most important effects of a single large exposure of the whole body to atomic radiation is almost immediate, but temporary, suppression of bone marrow activity. There have already been uncovered methods of reducing this effect if treatment is instituted prior to exposure. The amino acid cysteine given a few minutes before exposure reduces the effect by about half. Materials which injure bone marrow, if given seven to ten days prior to exposure so that the exposure occurs at a time when the marrow is just beginning to recover, have a similar sparing effect. Irradiation at a time when the animal is temporarily deprived of adequate oxygen permits increased chances for recovery. Furthermore, embryo spleen brei, spleen homogenates and bone marrow injections administered within a few hours after exposure are effective in promoting recovery. Apart from current discussions as to whether the latter procedures act by a cellular or a humeral mechanism indicates we are soon to know more about the factors, enzymes, coenzymes and state of oxygenation of tissues which control hemopoiesis. Successful procedures for promoting recovery of bone marrow damaged by radiation are bound to be useful in controlling some aplastic anemias encountered in practice.

Thirty years ago the problem of hazards of radioactive materials which may be ingested and eventually deposited in the bones was dramatized by the tragedy of the women radium dial painters who died of radiation-induced cancer of bone and aplastic anemia. In the atomic energy industry



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LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK  
\*TRADEMARK





we take elaborate and expensive precautions against this hazard. Nevertheless, it is a constant threat. Plutonium, polonium, thorium and strontium are all bone-seeking elements and for this reason we are sponsoring research to define the problem and develop methods for removing these elements from the body without taking calcium out of the bones.

Premature aging is a residual effect of total body exposure to ionizing radiation. At present we are in the stage of defining the problem in terms of dose and dose rate. This is a non-specific effect in the sense that no single cause of death seems to be responsible for the shortened life span. Its applicability to the baffling problem of the natural aging process will become apparent. Here we have an experimental tool, whole body irradiation, which can be used to study the aging process and incidentally to shorten greatly the time required for observation in life span experiments involving the longer lived experimental animals. Maybe before long we will be able to answer so simple a question as: "What precisely is aging?" or irrespective of chronological considerations "How old is Mr. Smith?" Perhaps we can even look forward to when retirement age can be individualized.

Cancer is the most dramatic and important consequence of overexposure to ionizing radiation. This may occur in the form of leukemia as has occurred in Japan, or it may be cancer of bone as in radium dial workers, or cancer of the skin as in so many pioneer radiologists. It is for this reason that the Atomic Energy Commission has a special interest in the cancer problem in addition to the fact that the great physicist, Enrico Fermi, died of cancer and Brian McMahon, the framer of the original Atomic Energy Act, also died of cancer. We spend annually some three million dollars of our research appropriation for researches into the cause, diagnosis and treatment of cancer, making use of the unique tools and by-products of atomic energy activities—radioisotopes, high energy accelerators, betatrons, cyclotrons and even atomic reactors. We are building at the Brookhaven National Laboratory on Long Island a custom-de-

signed medical research reactor, the first ever to be devoted exclusively to medical research and principally to explore further the possibilities of using reactor-generated neutrons for treatment of cancer. A promising beginning has already been made there by the medical department using the limited time (usually after hours) and improvised facilities available at the large Brookhaven reactor designed for research in nuclear physics and radiochemistry. Using the neutron capture reaction of boron 10 introduced into the tumor via the bloodstream, they have established the feasibility of this novel method of giving radiotherapy to deep-seated tumors. With the higher neutron fluxes to be available from the new reactor, they hope to produce positive therapeutic results in glioblastoma multiforma and other tumors.

The Oak Ridge Institute for Nuclear Studies has played a major role in developing the use of cobalt 60 in teletherapy devices as a substitute for high voltage x-ray machines. Those who use these machines claim for them not only excellent therapeutic results, but less radiation sickness. Recently this group has developed a device using a kilocurie radiocesium source. The energy of the gamma rays is only about half that of cobalt 60 gamma ray and, roughly, equivalent to the output of a million-volt x-ray machine. Cesium has two interesting advantages over radiocobalt. Its half life is some thirty-three years compared with a little more than five years for the cobalt 60. This means that cesium 137 sources will not have to be replaced so frequently as cobalt sources. Furthermore, cesium is one of the longer lived fission product wastes from atomic reactors so there is potentially an almost limitless supply of the material, provided economic methods of separating it from other fission products can be developed. The AEC is building a pilot plant fission product separation facility where this problem will be tackled on a large scale.

The Argonne Cancer Research Hospital at the University of Chicago School of Medicine is exploring a variety of modalities for treating cancer. These include a 50 mev linear accelerator and a 1600 curie high

specific activity cobalt 60 rotational teletherapy device. At the Argonne Cancer Hospital, at Brookhaven, at the AEC project, at the University of Rochester and at other institutions we are sponsoring efforts designed to solve the problem of how to concentrate more effectively radioelements in tumor tissue—elective localization. Both the immunological and the metabolic approach are being explored. In addition to these direct attacks on cancer, a large proportion of our work in radiobiology uses cancer induction as the end point, or uses experimental cancers and cultures of cancer cells as the biological system under study. All of these activities are grist to the cancer mill, and will make their unique contribution to solution of the cancer problem.

Radiation cataracts result from overexposure to ionizing radiation, especially to neutrons. Our program of research in lens physiology and biochemistry will contribute to the science of ophthalmology.

Genetic effects of radiation are another of our concerns. We have a broad research program in this field, both on-site at our major laboratories and projects and off-site at universities, colleges of agriculture and agricultural experiment stations. Dr. William Russell's studies at Oak Ridge now involve more than two hundred thousand mice. We spent more than a million dollars on the genetics studies conducted under Dr. James Neel at the Atomic Bomb Casualty Commission in Japan. This was the first truly large-scale human genetics study ever undertaken, and is providing a base line for all future human genetic studies. It was not possible to define the genetic effect of atomic bomb radiations on the populations of the two cities. However, what has been learned from this undertaking is already leading to improved methods for approaching that most difficult of all the areas of genetics research—human genetics. This heightened interest in genetics as a result of atomic energy activities is bound to result in new knowledge relevant to the so-called constitutional diseases and in all likelihood to cancer itself, whether the approach is the conventional sort or that pioneered by Dr. Theodore Puck of the University of Colorado School of Medicine, who has dem-

onstrated that it is possible to study human cellular genetics by using tissue culture technics.

Any cell which has been irradiated has suffered an insult of greater or lesser degree, depending on the amount of radiation received. Induction of a favorable mutation is a rare exception indeed. It is, of course, this injurious effect of radiation which makes it essential that all unnecessary exposure to ionizing radiation be avoided. There should be no exposure of persons to radiation without at the same time some useful purpose being served for the individual or the group. We should go farther as has been recently urged in the report of the National Academy of Sciences-National Research Council on the biologic effects of atomic radiation. Even when a useful purpose is served, whether in industry, in national defense, or in the practice of medicine, all radiation exposures should be kept at a minimum, especially exposures to the germ cells.

A few years ago only a few persons, radiologists and physicists, were in a position to be injured by radiation. But now the ever-growing atomic energy industry has swelled this number to many thousands. Although remarkably few radiation injuries have been recorded to date in spite of the rapid expansion of this work and the fantastic quantities of radioactivity handled today, it is essential that every physician and medical student become conversant with the biologic effects of ionizing radiation and diagnosis and treatment of the various types of radiation injury in their acute and chronic or late manifestations. This is important so that the physician can recognize and give appropriate treatment for radiation injury when it occurs, and in order that he can reassure his patient that his symptoms are not due to radiation if no overexposure has occurred. There is a natural tendency for a person to attribute any illness which he may have to his prior or present occupation. Similarly, if he lives in the neighborhood of an atomic energy plant or a weapons testing activity he may attribute that illness to radiation exposure. His physician must be prepared to give him guidance and to determine whether his ill-

ness is a manifestation of radiation injury.

A new field of industrial medicine and industrial hygiene has opened up with the growth of the atomic energy industry. To help meet the need for trained personnel in this field the AEC has established a number of traineeship type special fellowships. Some sixty to seventy fellowships in health physics are granted each year which provide for nine months of academic training at Vanderbilt University, the University of Rochester and the University of Washington, followed by three months on the job training at Oak Ridge National Laboratory, Brookhaven National Laboratory and the Hanford Works, respectively. Six or seven fellowships are granted each year for special training in industrial hygiene at Harvard and at the University of Pittsburgh. In industrial medicine proper we grant seven or eight fellowships each year for special training at the Harvard School of Public Health, the University of Rochester School of Medicine and Dentistry, the University of Pittsburgh School of Public Health and at the University of Cincinnati School of Medicine. These medical fellows are then offered a year of on the job training at one of our major sites, or they may take another year of academic work before their on the job training. Frankly, the demand for personnel with this sort of special training is so great we could double this program if there were sufficient numbers of qualified applicants.

Finally, in event of atomic war the physician must be prepared to evaluate and treat

radiation casualties whether in military or civilian practice. Radiation injuries on a large scale in an atomic war should not be approached as bizarre and strange. They present no symptoms not well known in normal practice to every physician. They consist in nausea, vomiting, diarrhea, purpura, oral and gastrointestinal ulcerations, gross hemorrhages and the like. The blood picture of pancytopenia is no novelty either. The sequence of events and appropriate use of available therapeutic agents can be mastered if the physician will take time to it. The nature and induction time for late effects of overexposure are well known. The present areas of uncertainty in our knowledge relate principally to the precise dose and dose rate relationships to specific effects rather than to the nature of the effects themselves. And even as to doses we can today bracket them in terms of effects produced with sufficient accuracy so that the National Committee on Radiation Protection can recommend maximum permissible occupational exposure levels with considerable confidence.

In short, the by-products and tools of atomic energy bid fair to making contributions to medical science and the practice of medicine as great as have been made in the past by the microscope. Like fire itself which has conferred so many blessings on mankind, but uncontrolled can be a scourge, atomic energy must be treated with respect. This has added new responsibilities to those physicians who work in the medical sciences, and those who practice the art.

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#### **AMA DEVELOPS RADIO SERIES ON SURGERY**

The drama of modern surgery will be highlighted in a new series of radio transcriptions which the American Medical Association currently is preparing for use over local stations. The general public will be able to hear on-the-spot descriptions of actual surgical procedures performed by eminent surgeons in 13 different areas, such as abdominal, brain or chest surgery. While performing a regular operation, the surgeon will comment on his movements in terms which the average person will understand. Afterwards, the doctor will be interviewed on new developments in his special field.

This series, a replacement for one produced a few years ago, is being prepared by the Bureau of Health Education in consultation with the officers of the AMA Section on Surgery. The

13-program series will be available for placement on radio stations by local medical societies about March 1.

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#### **AMA RURAL HEALTH MEETING SET FOR MARCH**

"Together We Build" will be the theme of the AMA's 12th National Conference on Rural Health to be held March 7-9 at the Brown Hotel, Louisville, Ky. Principal subjects to be discussed include: The need for frequent and thorough physical examinations; the impact of modern living; rural economics in relation to health, and the migrant labor problem. Time for discussion from the floor is being allotted. Sponsored by the Council on Rural Health, this year's Conference will begin at 10 a.m. Thursday, March 7, and wind up at noon on Saturday.



## Freedom in Medical Practice\*

Dwight H. Murray, M.D.  
NAPA, CALIFORNIA

ALMOST six months have elapsed since we last met to deliberate and act on medical affairs. The time has passed quickly, but not quietly.

The rumble of war and revolution has resounded in our ears. The din from political battles has been deafening.

All of us . . . sooner or later . . . learn that today's events do not just swirl around us, but involve each of us. As doctors we cannot get away from them by claiming that our only interest is in the sick, and that we cannot be bothered by political, social and economic problems. These matters demand attention from the doctor as well as the lawyer, the businessman, the newspaper editor, the labor leader and the worker.

If we are concerned about what happens on the international, national and local fronts—and we should be—then certainly we cannot afford to be disinterested in what happens in our own area of health and medical affairs. Yet there is apathy in our ranks.

### Replace Apathy with Active, United Profession

Today there is a greater need for a united, forceful and informed profession than ever before. We have been caught in the throes of a social revolution which demanded something for nothing. Changes have been taking place all around us, and medicine has not escaped unscathed.

For example, in a few days Public Law 569, the bill providing medical care for military dependents, becomes effective throughout the land. Contracts already have been signed with the government by the majority of our state societies. No longer can any

doctor claim that this law does not affect him. No longer can he say that government laws really are not changing the practice of medicine.

Public law 880, better known to all of us as H.R. 7225, is another case in point. Medicine now is facing the problem of protecting the taxpaying public from abuses and of cooperating with the government to carry out the provisions of the law. The law is now on the books, and we must provide the leadership necessary to make it work as well as possible.

It was encouraging to hear Ezra Taft Benson, secretary of agriculture, say last week before the American Association of Land Grant Colleges and Universities:

"Sooner or later, the accumulation of power in a central government leads to a loss of freedom. . . . Raids on the federal treasury can be all too readily accomplished by an organized few over the feeble protests of an apathetic majority. With more and more activity centered in the federal government, the relationship between the cost and the benefits of government programs becomes obscure. What follows is the voting of public money without having to accept direct local responsibility for higher taxes. . . .

"If the present shift of power from state to federal authority which started twenty-five years ago is allowed to continue, the states may be left hollow shells."

It was encouraging to hear such comments from a member of the President's Cabinet. I only wish that all members of the official family, and more important, every member of the United States Congress, felt the same way.

The expression of this philosophy, with which medicine so heartily agrees, sounds good, but putting it into practice is the thing we are really interested in.

\*The author is president of the American Medical Association. Speech delivered at the opening session of the House of Delegates at the clinical meeting of the American Medical Association in Seattle, Washington, November 27, 1956.

Today the medical profession along with business and industry is caught between those who desire to promote sound government and those who desire even more intensely to perpetuate party power. Unfortunately, in recent years a benevolent federal government appears more attractive to the voting public than the preservation of individual freedom. Medicine must do its utmost to reverse this trend.

### **Medical Freedom Essential**

In my travels around the country as your representative the last eighteen months, I have seen little dissension or rancor within our ranks. However, I must report that I have seen too much complacency over governmental encroachment into medical affairs. And I am deadly serious when I say to you that apathy by the few, or by the many, can be detrimental to all.

No nation can merely reap the benefits of freedom; it also must sow seeds of freedom.

In medicine the situation is the same. If an apathetic medical profession takes its freedom for granted, it will be the beginning of the end. A strong, free profession must work for freedom so that it may live in freedom. And history tells us that once medicine loses its freedom, other fields of private endeavor are immediately in danger.

I do not wish to paint a dark or distorted picture of medicine's free status and its stature in America today. But I do believe words of caution and an appeal for vigilance are in order.

The road of apathy and disunity can only lead to disorder and perhaps disintegration, and we must sound a warning to all our colleagues who don't care, or who are pulling in the opposite direction. The road of alertness, action and unity is the proper road for all of us to be traveling together.

If I had just one wish for the coming year, it would be to command the time and talents of the 160,000 physicians in the American Medical Association. I would set us all to the task of emphasizing and re-emphasizing the absolute necessity of patient and professional freedom.

### **Patient's Right to Choose His Doctor**

I believe it is one of our prime responsibilities to prove to our patients that their right to choose their doctor is a most important one.

Free choice brings a bond of confidence between doctor and patient which no compulsory medical system can create. It means that the patient knows the physician will be interested in him as a person, not as just a serial number of the 2:45 appendicitis case.

For the doctor free choice means that the patient has selected him for his abilities, training, sincerity and personality. When a patient comes into my office, I know he has made a choice. And from that moment there begins a physician-patient relationship of the highest order. To me the patient is someone special, and I in turn hope I am someone special to him.

Once the patient has made his choice, the physician automatically assumes an unqualified responsibility to the patient. No system of medical care that uses a third party to bring doctor and patient together can match our kind of cooperative performance for the treatment of illness, the cure of disease and the betterment of the patient's health.

Freedom to select a doctor is part of everyone's great freedom to choose — to choose what he wears and eats; where he works and worships, and how he votes. Take away any part of this freedom and great damage is done to our democratic system.

### **Free Conduct in Medical Treatment**

Another freedom closely tied to freedom of choice is freedom in the conduct of medical treatment.

At the recent meeting of the World Medical Association in Havana, Cuba, Dr. Rolf Schloegell of Germany made a stirring defense of free conduct of medical treatment. He told us that the medical profession believes the attending physician alone is competent to decide what measures he deems necessary and will apply in order to bring about the desired improvement. He warned too of the danger of excessive restriction on the freedom of the patient and the attending doctor.

Yet the trend toward extending social security in the medical care field has been steady and has accelerated since the end of World War II.

The dangers of shifting responsibilities for medical care from the patient and doctor to the government are obvious. The caliber of medical care cannot be as high when both patient and doctor are dependent upon government. Initiative succumbs to dictation, and self-reliance is replaced by the crutch of government.

We do not deny that there is an area of legitimate concern by the government for the health and welfare of the people. But each year government seems to extend that area. We get some idea of this expansion from the new federal medical budget.

This year, according to our Washington Office, the average family will be paying \$54.61 for the U. S. Government's health and medical activities. And the total expenditures this year amount to two and one-half billion dollars—290 millions more than last year. Even in an over-all federal budget of sixty-one billion dollars, the total health cost of two and one-half billions is not insignificant. It is a billion dollars more than the cost of running the Commerce Department, half a billion more than the Agriculture Department and six times more than the Interior Department's budget.

Many expenditures obviously are necessary to keep up our unsurpassed public health standards, and research may pay rich dividends in scientific discoveries. But there is no doubt that much money is being spent on medical activities that should not involve government participation.

The trend is to spend more and more government money on health and medical matters because it is good politics. Apparently many Americans still want to see government in the role of a big brother, dishing out so-called gifts and bargains under the guise of benevolent economic planning.

I believe it is our duty, as it is everyone else's, to combat the attitude of "what's in it for me?" and to promote the long-honored creed of "what's best for all Americans and our free society?" I think that a nation can drift into state medicine inch by inch

just as surely as if the scheme were foisted upon a people overnight. The "drift" method may take longer but the result will be the same.

So it is time all of us sounded the alarm against soft and superficial security and against the invasion of personal responsibility. It is time we stood up together for militant freedom and for full rights and responsibilities of the individual.

### **Belgian Doctors Turn Back Government**

There is no better example of what a unified medical profession can do than in the story of the recent fight of the Belgian doctors against the government's proposals for a state service of medicine.

Without consulting the medical profession the Belgian government proceeded to draft rules and regulations of health to be incorporated in the nation's social security legislation. Under the proposals doctors were to sign an agreement to abide by the present rules and any later regulations. For the patient there would be the usual red tape in getting medical care.

When the Belgian doctors learned of the scheme, they met in conference with the government. They told the government what they wanted and what they would not accept. The government agreed.

For several months everything was quiet. Then the Belgian doctors suddenly read about the new health bill that the government was sending to Parliament. It was quite contrary to the earlier agreement worked out by the profession and the government. But the bill was passed quickly.

The Belgian medical profession protested and said it would not be placed under the Ministry of Labor. Instead the doctors proposed to set up their own plan of medical assistance.

Before long, the government saw that the medical profession meant business and that the doctors' plan was an attractive one. So it declared that its own bill was not in force and could not be in force without the consent of the medical profession.

To me this fight against legislative intervention in medical care is excellent evidence that the profession can defend itself

if it unites to defend the basic principles of freedom and if it offers constructive proposals. By using the Belgian national motto, "in union there is strength," the medical profession showed doctors everywhere that dangerous government plans can be turned aside by the strong.

I also read recently in the *Journal of the World Medical Association* of the fight of the medical profession of Malta against a British government scheme to introduce a full-time salaried medical service, without the right of private practice, on an island dependency of Malta. Here again the doctors reacted with unity and strength, and successfully thwarted the government's plan.

There is a lesson in these stories from Belgium and Malta. They prove that a unified profession has a great political power for good—the good of the patient, the doctors and the nation.

#### **Confidence and Understanding Needed**

While we are developing unity within our own ranks, I believe it is equally important to continue to build up the confidence and respect of our patients and to make our legislators aware of the necessity for freedom in medical practice.

Let us never reduce the quality of service we render to our patients, and never lose the personal touch in medicine. Where there is any opportunity to improve upon our medical care, let us seize it and show our abilities to do an outstanding job. Satis-

fied patient-customers will give us deserving support when we need it.

We also should realize that the destiny of medicine can be determined to a large degree in the halls of Congress. If this be true, then it is even more important that we take an even greater interest in those who elect the Congressmen. Sympathetic understanding of our position by federal legislators through the voting public will be an insurmountable deterrent to the forces supporting state medicine.

The day has come, gentlemen, when we can no longer look upon medical economics and social changes merely as issues to be considered during our limited leisure hours. Our interest in them cannot be superficial or intermittent.

We now must pay daily attention to these matters. Medical socio-economic affairs can no longer be just incidental with us. They must be a vital part of our life and of our profession.

Each of us, I believe, should dedicate himself to the words included in the oath of office taken by Presidents of the A.M.A.

"I shall champion the cause of freedom in medical practice and freedom for all my fellow Americans."

As doctors, representatives to the A.M.A. and as spokesmen for the A.M.A., let's remember these words and live by them. And to alter a phrase of President Lincoln's only slightly: Let's make common cause to keep the good ship of medical freedom on this voyage, or nobody will have a chance to pilot her on another voyage.

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#### **AMA CONGRESS STRESSES HEALTH ON THE JOB**

Safeguarding the worker's health will be the chief consideration of representatives of labor, management, government and the medical profession at the 17th annual Congress on Industrial Health to be held February 4-6 at the Biltmore Hotel, Los Angeles. Sponsored by the AMA's Council on Industrial Health, it is open to physicians, nurses, industrial hygienists, engineers and others interested in occupational health.

A special session on "Vision in Industry" will be presented Monday afternoon, February 4, and Tuesday morning, February 5, in cooperation with the National Society for the Prevention of Blindness. This presentation will cover such things as the components of a vision program, evaluation of vision screening methods, testing for color perception, estimation of loss

of visual efficiency, relationships between illumination and vision, the successful eye protection program, prescription safety goggles, emergency treatment of eye chemical injuries, screening for eye disease, responsibilities and limitations of the industrial nurse in a vision program.

Other topics include: "Health Hazards of Agricultural Chemicals," "New Concepts in the Management of Burns," and "New Developments in Hearing Loss Due to Industrial Noise." A number of scientific exhibits directly related to these problems will be displayed. In addition, special tours of the research laboratories of the Subcommittee on Noise in Industry have been scheduled for Monday morning and evening and Thursday morning. Advance reservations should be made for these tours since space is limited. Further information may be secured from the Council.

# Adrenalectomy In Advanced Malignant Tumors\*

Gerald M. Miller, M.D.

DENVER

*Adrenalectomy appears to offer an effective tool in management of advanced mammary cancer. It is less hopeful in prostatic cancer.*

AMONG the fields of surgery now advancing rapidly, that of the relationship of "steroids and cancer" comes high on the list. Increased knowledge of steroid hormones and surgical endocrinology has brought us progressively closer to an understanding of bodily reactions to stress in general and surgery in particular. Certain endocrine glands are of importance in regulation of growth of tumors. The hormones most intimately involved are likewise steroids. The rationale for bilateral adrenalectomy in patients with neoplastic disease is based upon both clinical and experimental evidence that the adrenal gland is involved in the growth of neoplastic tissue.

Experimental evidence includes the following:

1. Removal of adrenal glands in experimental animals has a profound effect upon growth of certain tumors. For example, in rats, transplanted sarcomas and carcinomas are inhibited by adrenalectomy. However, the growth of transplantable lymphatic leukemia in rats is accelerated by adrenalectomy.

2. Administration of adrenal cortical hormones, namely, cortisone and hydrocortisone or ACTH, will cause regression in certain lymphoid tumors in both animals and man, indicating that the adrenal cortex might be involved in growth of neoplastic tissues.

\*Presented at the annual meeting of the Colorado State Medical Society in Denver, Sept. 23, 1955.

From a clinical standpoint, the relationship between the development of the mammary and prostate glands and the endocrine system, particularly to the gonads, has long been known. That certain cancers derived from prostatic and breast epithelium should retain their dependency on these hormones and can be influenced in their growth by castration, is a well documented fact of practical clinical value in treatment of advanced metastatic disease. The simple theory on which Dr. Charles Huggins of the University of Chicago, who has contributed much to this field, based his early work on endocrine control of advanced prostatic cancer, and which he later applied to cancer of the breast, was formulated as a biological syllogism. "In many instances a malignant prostatic tumor is an overgrowth of adult epithelial cells, and all known types of adult prostatic epithelium undergoes atrophy when the endogenous hormones are greatly reduced in amount, as after castration or inactivation (neutralization) by estrogen administration. Therefore, significant improvement should occur in the clinical condition of patients with far-advanced prostatic cancer subjected to castration and/or estrogen administration." The truth of this theory has been well established in thousands upon thousands of beneficial results since this work was introduced fifteen years ago.

Likewise, carcinoma of the breast is also known to be affected by endocrine therapy. In 1896 Beatson performed surgical castration on two women with advanced mam-



mary carcinoma, and observed improvement in both, with regression in their local disease. Nine years later, Lett reported a collected series of ninety-nine cases of castration in women with advanced breast cancer, with a response rate of 36.4 per cent over-all, and of those benefited, one-half were reported to have been improved for a year or more. Despite this, until recently oophorectomy has been little used in treatment of breast cancer, being succeeded by x-ray castration, despite the fact that complete defunctionalization of the ovaries is less certain by this means. The introduction of testosterone in treatment of breast cancer and investigations that followed further confirmed in man the hormonal sensitivity of certain of these lesions. Unfortunately, while regression of local and metastatic disease may occur following castration and following androgen therapy, the duration of response is brief, and in a few months to a year or so progression again occurs in the average responsive case.

In prostatic cancer, with hormonal therapy, as described, few, if any, cures are obtained, and while the percentage of cases likely to respond and the duration of response are both much more favorable than with breast cancer, the fact remains that almost all eventually relapse.

The following is evidence of sex-hormonal production in the adrenal glands:

1. Production of androgens and estrogens by adrenal glands in mice was demonstrated beautifully by Wooley.

2. Human tumors of the adrenal gland with estrogenic effects, as well as the more common androgenic effects, are rare but well documented.

3. Estrogen production continues in the female after the menopause or after surgical castration. This estrogen was shown to come from the adrenal glands.

4. Huggins and his group demonstrated an increase in the 17-ketosteroid excretion following orchiectomy, indicating increased adrenal production of androgens.

Postulating that in patients with prostatic cancer who fail to respond to castration, but especially in those who relapse, there must be some source of androgen present other

than in the testicles, and with the above evidence that this was most certainly from the adrenals, Huggins and Scott in 1945 reported the first bilateral adrenalectomies on four patients with disseminated carcinoma of the prostate. Only one survived long enough for evaluation, and he showed some improvement. However, it was not possible at that time to maintain life in the surgically adrenalectomized patient because of inadequate replacement therapy.

When cortisone became available, bilateral adrenalectomy for advanced prostatic and breast cancer and other neoplastic disease was again considered and undertaken by Huggins and his associates in 1950, and then by many other groups in this country and Europe. Technics were evolved for carrying a patient through the operative period, and maintenance has proved relatively simple in the absence of major stress.

The results and the merits of bilateral adrenalectomy in treatment of disseminated cancer of the breast and prostate will be decided on their practical value—not on any theoretical basis. Only in tumors of breast and prostate has there been any response at all to bilateral adrenalectomy. Table 1 shows the response of a group of miscellaneous tumors. In no instance was there evidence of any effect of adrenalectomy on these tumors.

**TABLE 1**  
**Results of Bilateral Adrenalectomy**

Various Cancers	Total Cases	Subjective Improvement	Objective Improvement
Lung	19	0	0
Cervix			
Kidney			
Ovary			
Stomach			

Next, results of disseminated cancer of the breast. Bilateral oophorectomy was done in all of these cases, either before or at the time of bilateral adrenalectomy, even in post-menopausal women, to make absolutely certain that a hormonal environment devoid of estrogens would be produced. In all cases all other forms of therapy had been tried and the disease was progressing. Most of the patients were

bedridden and requiring large amounts of narcotics to control pain, and all were considered in a far-advanced stage of the disease.

We have tabulated the results from the five largest series recorded in the literature, including the University of California series that we worked with. This gives a total of over 200 cases for analysis. Subjective improvement as the result of bilateral adrenalectomy includes the following:

1. Relief of intractable pain.
2. Disappearance of respiratory symptoms.
3. Regaining of a sense of well-being.
4. Increase of appetite and gain in weight.
5. Regaining of strength and vitality.

Objective improvement includes the following:

1. Regression of soft-tissue metastases.
  - (a) Disappearance of local recurrent lesions.
  - (b) Disappearance of metastatic pleural and pulmonary lesions.
  - (c) Involution of metastatic lymph glands.
  - (d) Healing of cancerous ulcers.
2. Regression of bone lesions.
  - (a) Healing of pathological fractures.
  - (b) Healing of osteolytic defects.
  - (c) Improvement in alkaline phosphatase levels.

The results were as follows:

**TABLE 2**  
**Results of Bilateral Adrenalectomy**  
**in Breast Cancer**

Source	Total Cases	Subjective Improvement	Objective Improvement
Huggins .....	95	50%	40%
Cade-England ..	56	60%	23%
Memorial .....	30	60%	40%
U. California.....	29	45%	22%
Taylor .....	18	50%	27%

The operative mortality varied from 2 to 5 per cent in the various series, which, considering the magnitude of the procedure and the condition of the patients, does not seem excessive. Postoperative deaths are excluded from the number of total cases, so that the figures represent only those cases followed for a reasonable period. In

all of the series there are patients alive for more than two years after the procedure and, particularly in the Dr. Huggins' series, there are a number alive after three years. In the Memorial series the average duration of the beneficial response was a little over nine months. Of patients that responded at all in Dr. Huggins' series, 25 per cent were felt to have a considerable remission, lasting for a year or more. It is interesting how closely the figures from these widely scattered series correlate.

Thus, gratifying relief to patients with disseminated mammary cancer often follows bilateral adrenalectomy and oophorectomy. These cases prove the presence of an adrenal component which sustains mammary cancer and propagates the disease. Other types of mammary cancer fail to respond, and therefore the problem is a proper selection of cases for the procedure.

Analysis of the above cases reveals the following correlations with response to adrenalectomy:

1. Age. Few women under 40 had a favorable response. The younger the age, usually the graver the prognosis, any way in the disease. The most favorable results were between ages 45 and 65.

2. Degree of malignancy (rapidity of growth). Based on the interval between radical mastectomy and onset of metastases. Better results occurred in women who had a more prolonged interval between mastectomy and recurrence of metastasis of cancer.

3. Specificity of the tumor — histologic type. The most responsive were true adenocarcinomas, or at least where the predominant part of the tumor had adenocarcinoma in it. Duct-cell cancer seldom responded, and completely undifferentiated cancer was never improved. This is understandable from our discussion of rationale.

4. Estrogen excretion. Measured by Huggins pre-operatively on twenty women, ten that responded to adrenalectomy and ten that did not, and those that responded had average titers almost three times as high as the non-responsive ones.

5. Response to oophorectomy. Patients

who have gained a remission to oophorectomy commonly respond favorably to subsequent adrenalectomy.

6. Calcium excretion. Increased excretion of calcium in the urine following the administration of estrogenic substances to patients with osseous metastases usually indicates a favorable response will be obtained.

To summarize this portion on carcinoma of the breast, I quote from Dr. Huggins: "The thing that appeals to me is this: The adrenal operation is somewhat difficult. It is also expensive. One needs a certain devotion to these patients. One needs courage, because the problem is enormously sad. The results, however, are moderately satisfactory."

Now, for the results in advanced carcinoma of the prostate. All the patients who underwent bilateral adrenalectomy had been previously treated by bilateral orchiectomy and estrogens, and had either failed to respond at all in a few cases or, as in most of the cases, following excellent remissions, they were in severe exacerbation at time of surgery. There are no very large series in the literature, as with breast cancer, but rather a moderate number of small series ranging from one case to seventeen in the Memorial series.

Subjective improvement as a result of bilateral adrenalectomy includes the same things that we discussed under cancer of the breast. Objective improvement includes:

1. Decrease in size of local lesion and lymphatic metastases.
2. Improvement in bony metastases.
3. Decrease in acid phosphatase.

Table 3 shows the results tabulated from a collected series:

**TABLE 3**  
**Results of Bilateral Adrenalectomy**  
**in CA of the Prostate**

Total Cases	Subjective Improvement	Objective Improvement
60	85%	18%

As seen from these figures, subjective response of the patient is the main thing.

Relief of pain is striking, and the main beneficial response. Only in a rare instance was there any prolongation of life. Under objective improvement the main response of the 18 per cent was a temporary decrease or complete disappearance of the local prostatic lesion to palpation. In only one case out of the sixty was there any improvement in appearance of bony metastases by x-ray. In most there was visible progression of these metastases, in spite of symptomatic relief. One other great important difference in this disease, as opposed to patients with disseminated breast cancer treated with bilateral adrenalectomy, is the duration of response, which averaged considerably less than the prostate cases and, in fact, just a little over three months, in spite of the fact that some of us had individuals alive after one and, in a rare instance, two years.

We took ten consecutive patients with far-advanced cancer of the breast who were in severe exacerbation after earlier remissions from previous therapy and treated them with doses of cortisone ranging from 50 to 100 mg. a day in an attempt to see if we could produce a "medical adrenalectomy" that could be as effective as actual surgical bilateral adrenalectomy. We also used this opportunity to continue our study on hormonal interrelationships in the disease. The results in these ten are as follows:

**TABLE 4**  
**Results of Cortisone Treatment of**  
**Advanced Prostate Cancer**

Symptomatic improvement.....	8 of 10 cases
Improvement in local lesion.....	6 of 10 cases
Improvement in bony metastases.....	0 of 10 cases
Improvement in acid phosphatase.....	2 of 10 cases

Similar results with cortisone have also been obtained by other investigators. These results compare favorably with surgical bilateral adrenalectomy in degree of response, but duration of response was less with cortisone. Of interest is the fact that we did bilateral adrenalectomies on three patients in the cortisone series. Two were operated on after exacerbation occurred following good remissions from cortisone



alone. One of these lived eighteen months after surgery and returned to work for over fourteen months on his farm. The second patient was completely relieved of his severe pain for one month and then began having pain as severe as before surgery. He died four months later. The third was operated on after one month of cortisone therapy had failed to produce any symptomatic relief or alter the progressive downhill course. The surgery gave him symptomatic relief, but this lasted only six weeks and he died from this disease two and one-half months after surgery.

What does all this mean? Even though some patients have experienced gratifying relief and there is evidence of regression of lesions in a few cases, because of the relatively short average duration of response, bilateral adrenalectomy does not seem to us to be a practical procedure in advanced carcinoma of the prostate. However, because of its simplicity and little danger involved, use of large doses of cortisone does seem to be an additional tool in the urologist's armamentarium in advanced prostatic car-

cinoma. Depending on response to this then, in a rare instance, bilateral adrenalectomy might be decided upon.

#### Summary and Conclusions

1. The rationale for bilateral adrenalectomy in hormone-dependent disseminated cancer of the breast and prostate has been given.

2. The results from a collected series of 228 patients with disseminated cancer of the breast who underwent bilateral adrenalectomy and oophorectomy were presented. A large percentage of beneficial effects, both subjective and, more important, objective response, would indicate that these procedures appear to offer an important and useful additional therapeutic tool in the treatment of advanced mammary cancer.

3. Results presented in a much smaller collected series of patients with disseminated prostatic cancer indicate that bilateral adrenalectomy is not as effective in this disease. It does not appear to be a practical tool for cancer of the prostate, and we feel large doses of cortisone should be used first.

## Arteriovenous Fistula\*

Robert S. Stewart, M.D.

PHILADELPHIA

*This concise review of a now rare clinical entity is presented with an interesting background.*

**B**BETTER than any other disease, aneurysm illustrates how borderless are the boundaries of medicine and surgery. Here am I talking in the most surgical of all its aspects, while very likely not far away a surgeon is practicing the best possible prevention against internal aneurysm in giving

\*This is a prize paper of the Waring Society presentations at the University of Colorado School of Medicine. The Society is an honorary group of Junior and Senior students whose purpose is to expand their interests and to inspire others to do so.

a syphilitic patient an injection of salvarsan!" Thus spoke Sir William Osler in 1915. Even though salvarsan has decreased in popularity, the interest and study of aneurysm has not decreased and this condition continues to be among the most interesting and clear-cut physiologic and pathologic entities seen by both surgeon and internist at the present time.

"Aneurysm has been a medico-surgical affection every since some bungling young 'minutor' first nicked the brachial artery

in performing venesection." One of the earliest references in the literature is concerned with an instance of this kind seen by Galen. Galen was called in consultation by a young, inexperienced surgeon who had accidentally opened the artery, instead of the vein, at the bend of the elbow. Galen states: "I took in the situation at once; there happened to be an elderly physician with me, so we prepared a medicine, viscid, conglutinable, and obstructive, and placing it strongly against the lips of the wound bound over it a soft sponge. The surgeon who had opened the artery wondered, but said nothing. When we went out I said to the surgeon that he had opened the pulsating vessel, and charged him not to dress the wound before the fourth day, and not without me." The cure was apparently complete and Galen remarked that this was his only successful case of this kind, because in all others aneurysm had followed.

The following description, taken from the anatomic and physiologic notebook of John Keats, the poet, is particularly concerned with the condition of aneurysmal varix following accidental puncture of the brachial artery through a vein during venesection, several instances of which had come to the notice of Astley Cooper: "The aneurysmal varix produced by pricking an artery through a vein. The lancet is pushed through the median vein and punctures the brachial artery. In a week or ten days the vein begins to enlarge and pulsates like an aneurism. If you make pressure above in the artery and below on the vein it will disappear. It is fed both by artery and vein. There is a constant hissing noise. The brachial artery becomes twice its natural size—the veins are not enlarged . . ."

It may be confidently claimed that Keats took these notes at a lecture by Astley Cooper, for the description is almost identical with those found in the manuscript notebook of Waddington; in Tyrrel's edition of Cooper's notes; in another unnamed edition and in Lee's edition. All of these may be seen in the Wills Library at Guy's Hospital.

#### Definition

An arteriovenous aneurism is an abnormal communication between an artery and

a vein, which may be direct or may be connected through a sac.

#### Types

It is interesting to note that in some regions of the body arterioles normally communicate with venules; for example, the skin of the palm of the hand and terminal phalanges, the nail beds, the skin of the lips, nose, tongue, eyelids and the tip of the tongue. This is an addition to the capillary circulation. The placenta, through the chorionic villi, is an example of a physiological arteriovenous fistula; it is true in utero and produces more symptoms as a result of the shunt if the pregnancy is intra-abdominal. Congenital anomalies such as a patent ductus arteriosus or large hemangiomas, particularly in the liver, are examples of direct communication between an artery and vein. Hyperplasia and hypertrophy of vascular organs constitute another type of arteriovenous fistula. Perhaps the outstanding example of this is found in exophthalmic goiter.

In this paper we will be concerned with three types of arteriovenous fistulae:

1. Congenital. This is the most frequent type of arteriovenous fistula and makes up approximately 70 per cent of the total number of these lesions. This type is usually found in the upper extremities and involves a number of channels rather than a single shunt. This type is the result of failure of differentiation of the common embryologic structure into an artery or vein. In the early process of differentiation there are multiple communications between artery and vein and persistence of these communications results in congenital arteriovenous fistula. The usual congenital type is not associated with cardiac effects.

2. Acquired. This is the second most frequent type of arteriovenous fistula and makes up approximately 25 per cent of the total number of these conditions. They are commonly caused by penetrating wounds and comminuted fractures. In contrast to the congenital type these usually involve a single shunt.

3. Degenerative Disease. This is a rare cause of arteriovenous fistula, making up only 5 per cent of the total number of these

conditions. This type of lesion tends to occur most frequently in larger vessels.

### Signs and Symptoms

In general, the symptoms and signs of congenital arteriovenous fistulas are similar to those of acquired fistulas. Certain differences, however, are noted. Many of these patients will have birthmarks in their extremities. An increased growth of hair and profuse sweating of the involved areas is usually found. Since the majority appear before closure of epiphysis, there is often a striking increase in growth of the involved limb and the temperature of the skin of the affected extremity is usually higher than of the opposite one. Neither the thrill, murmur, or slowing of the pulse rate on compression of the fistula is as pronounced in the congenital type. The treatment of congenital arteriovenous fistulas is much more difficult and often unsatisfactory because the communications are usually widespread and extensive.

The introduction of a fistula into the circulation superimposes a second, or fistulous circuit, upon the normal circulatory bed. This circuit is in reality parasitic upon the first. The normal circulation consists of the heart, arterial bed, capillary bed, and venous bed. The fistulous circuit consists of the heart, the artery between the heart and the fistula, the fistula, and the vein between the fistula and the heart. Common to both systems are the heart, the artery to the fistula, and the vein from the fistula to the heart. Each system requires a certain volume of blood to satisfy its needs and when the parasitic circulation attracts to it the greater volume of blood, the animal or patient dies.

The effect of the diversion of blood from the normal arterial bed into the parasitic circuit is manyfold and leads to the following signs and symptoms; in no form of aneurysm are the physical signs so distinctive:

Inspection may not show much—diffuse pulsation at the site of the communication; moderate swelling, but not necessarily any early venous engorgement. In the carotids, subclavians, and axillaries the condition may persist for years without much swelling or great enlargement of the veins. On the other hand, in the form that was so com-

mon at the bend of the elbow in venesection days, the circulation is much interfered with. The venous swelling may be marked, even in smaller vessels such as the occipital. In the leg, in particular, venous engorgement sooner or later dominates the scene. Other features that may be noticed are the increased size of the limb, roughening of the skin, and a thicker growth of hair, and in long-standing cases varicose ulcers are common.

**Palpation**—The characteristic, rough, vibratory, continuous thrill is felt. The thrill increases in intensity with the diastole of the artery. Except for its roughness it is quite unlike any other thrill felt in cardiovascular lesions and is therefore pathognomonic. It has an interest, too, as one of the oldest of recognized physical signs, having been described by Antyllus. While of greatest intensity at the site of the lesion, it may be widely diffuse and even felt at the fingertips in an axillary or brachial aneurysm and at the toes in a femoral aneurysm.

**Auscultation**—The second characteristic physical sign is a loud, rough murmur which has been compared to the sound of a humming top. It is continuous and intensified during the cardiac systole. The murmur is rough, harsh and vibratory during distention of the vessel, while during its contraction it has a graver, deeper quality. It may be widely diffused, heard up and down the vessels even to the finger-tips in the brachial and axillary aneurysms, and to the toes in the femoral aneurysm.

Practically, therefore, the three great physical signs of an arteriovenous aneurysm are: 1. the dilatation of the veins; 2. the thrill; and 3. the murmur.

### Physiologic Changes

Several changes occur immediately after the formation of an arteriovenous fistula:

1. Blood pressure is lowered when the artery and vein are first united. This results from the sudden loss of blood from the arterial circulation into the venous side. The diastolic pressure is permanently lowered but the systolic pressure is gradually restored to normal or even above the normal level by compensatory factors listed below (2 and 3).

2. The pulse rate is raised. This is an early and temporary change produced by an attempt of the heart to compensate for the lowered blood pressure. The acceleration of the pulse has been ascribed by Lewis and Drury to the reduction in the mean arterial pressure—(Marey's Law: the pulse rate is inversely related to the arterial blood pressure, a rise or a fall in pressure causing, respectively, a decrease or an increase in heart rate)—resulting from the leak through the arteriovenous fistula, rather than to an increase in venous pressure (Bainbridge reflex). It is interesting to note that one group of investigators working with dogs, found that progressive opening of the fistula did not consistently or conspicuously alter the heart rate.

3. A great increase in the amount of blood results from the fistula, since the volume of circulating medium must be increased to compensate for loss of arterial oxygen carriers. Holman has shown that the most important readjustment following the production of an arteriovenous fistula is an increase in total blood volume which is proportional to the size and duration of the fistula. A renal retention of salt and water, perhaps by inadequate arterial filling, presumably plays an important role in the expansion of extra-cellular fluid and plasma which occurs under these circumstances. It has been shown in the anesthetized dog that an acute arteriovenous fistula may lower the renal plasma flow by inducing renal vasoconstriction, reducing the glomerular filtration rate and decreasing the amount of sodium, water, and chloride excreted. The increased blood volume is reduced immediately following operative removal of a fistula by a reduction in the plasma as shown by increased urinary output, and by a concentration of red cells and hemoglobin in the blood.

4. The heart may decrease in size, for a brief time only, due to decreased peripheral resistance and due to diversion of blood to the venous system. This fleeting reduction in size of the heart is accompanied by a reduction in size of the artery proximal to the fistula.

After the fistula has been established for

a time other physiologic changes are noted:

1. Part of the circulating blood is permanently diverted from the normal capillary bed.

2. The increase in blood volume is dependent on the amount of blood diverted.

3. The heart, artery, and vein proximal to the fistula dilate, as the circulation is distended by an increased volume of blood to the fistula.

4. An extensive collateral circulation develops around the fistula.

5. Due to the dilatation, distension, and increased work, a hypertrophy of the heart is seen. That this increase in the size of the heart is caused by both a dilatation and hypertrophy has been shown by Holman who found that after an arteriovenous fistula had been established and allowed to persist for a certain length of time, there occurred in addition to the marked cardiac dilatation a definite increase in the weight of the heart, which he concluded must be hypertrophy.

#### Treatment

As has been mentioned, treatment of congenital aneurysm may be difficult due to multiplicity of vascular channels. New areas tend to break through between the artery and vein after repair, leading to development of new arteriovenous aneurysms. The treatment of choice is excision of the mass. Only rarely is it possible to restore the continuity of the artery, but this is unnecessary in most cases because of the efficiency of collateral circulation.

Adequate surgery gives a good prognosis in the treatment of acquired arteriovenous fistulae. Elkin has stressed the importance of waiting for a period of three to six months after formation of a fistula before attempting a surgical removal or repair in order to allow adequate collateral circulation to develop. This may be necessary in certain instances but if the situation is urgent preliminary sympathectomy and early surgery may be feasible. A delay before surgery, if the conditions permit, is also advisable in that the danger of infection is reduced and tissues infiltrated with blood will tend to return to normal, permitting better identification of structures and easier dissection of tissues.

Immediate operation may be necessary if the wound in the artery is accompanied by: a. uncontrollable bleeding; b. progressive enlargement of the pulsating hematoma of the soft tissues; or c. by progressive interference with the development of collateral vessels by swelling of the limb through infiltration of tissues with blood under arterial pressure.

The ideal treatment, resection with anastomosis of the artery, is possible in only a small percentage of cases, and depends to a large extent on the cause and degree of loss of the artery. The most desirable alternative is excision of the aneurysm and repair of the artery with resection of the vein and sac.

It should be emphasized that elimination of the fistula may precipitate cardiac decompensation from over-distention of an already dilated heart. The surgeon, therefore, should be prepared for prompt venesection to remove the excess of blood. As the diastolic pressure increases after closure of the fistula, prolonged care to prevent secondary myocardial strain is advisable.

#### Prognosis

In general, an arteriovenous fistula situated in an upper extremity is more favorable than one located in a lower extremity. An untreated arteriovenous fistula may follow several courses but the prognosis without operation is generally unfavorable:

1. The aneurysm may remain unchanged for years and interfere very little with the patient's health and vigor.
2. Spontaneous healing may occur, the orifice closing between the artery and the vein.
3. Sudden death may result from heart failure or embolism.
4. Aneurysm may rupture with a resultant fatal hemorrhage.
5. Disability may result from varicose veins and thrombosis and ulceration.
6. The vascular tissue involved may take on a nevoid growth.

#### Summary and Conclusion

In this paper I have attempted to summarize the literature dealing with arteriovenous fistulae. Three types of arteriovenous fistulae are discussed and the signs and symptoms and associated physiological changes are presented. A brief discussion of the treatment of these lesions and their prognosis has been added in an attempt to familiarize the reader with the general aspects of what can be done for patients presenting with lesions of this kind.

In closing I should like to quote from J. A. Ryle, whose association with Guy's Hospital in London has brought him close to the memory of Sir Astley Cooper and John Keats, both of whom were associated with Guy's and are noted in the history of arteriovenous fistula. The following words were written during the second world war:

"In this rare but interesting accident, which becomes less rare only in times of war, anatomy and physiology, surgery and medicine have found, as they so often should, both common ground and common achievement and also common problems still calling for investigation. Over them all romance and the history of science join hands, for we cannot, without a kindling of pleasurable sentiment, conjure the picture of John Keats, one of the greatest poets of all time, sitting at the feet of Astley Cooper, one of the greatest surgeons of all time, and inscribing his youthful notes. While Astley Cooper was giving this course of lectures Keats was brooding his first volume of poetry and, probably in the same year, wrote 'On first looking into Chapman's Homer.' One hundred and twenty-five years later his classmates have provided a reference and an inspiration for a generation of students faced with the clinical and other problems of the greatest war of all time—a war waged to protect and secure those conditions of freedom without which neither science nor poetry can flourish."

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#### *Nation to Observe*

*"Medical Education Week" April 21-27*



# Jaundice in Congenital Hemolytic Anemia Due to Viral Hepatitis\*

J. E. Cook, Capt., MC†  
G. W. Briggs, Maj., MC, and  
R. F. Dillon, Maj., MC

COLORADO SPRINGS, COLORADO

**J**AUNDICE occurring in congenital hemolytic anemia is usually ascribed to rapid hemolysis of the spherocytes<sup>1</sup>. Factors other than excessive red blood cell destruction may produce jaundice in this disease. Cholelithiasis and other causes of biliary tract obstruction are notorious for baffling the usual clinical picture<sup>1,2</sup>. Viral hepatitis is a common and ubiquitous infection. It should be considered more often in the differential diagnosis of acute jaundice appearing in patients with congenital hemolytic anemia. The purpose of this paper is to re-emphasize the possibility of viral hepatitis precipitating the picture of jaundice in congenital hemolytic anemia<sup>3</sup>. A case illustrating this occurrence is presented.

## CASE REPORT

This 20-year-old white male was admitted to the U. S. Army Hospital at Fort Carson, Colorado, on February 3, 1955. He was inducted into the Army on January 18, 1955. The patient entered with complaints of right upper quadrant distress, anorexia, dark urine and jaundice for a period of one week. The only parenteral injections that were administered were those given for immunization two weeks before the onset of his illness.

The family history revealed the father to have anemia and a large spleen. Two brothers had large spleens and one brother had jaundice in the past that was treated by splenectomy. Two paternal cousins had splenectomies for similar reasons.

Physical findings revealed a well-developed, well-nourished, 20-year-old man. The sclerae and skin surfaces were icteric. The spleen was pal-

pable on deep inspiration and the edge of the liver could be palpated two fingersbreadth below the right costal margin.

Laboratory studies revealed the white blood count to be 7,000. The differential count showed 56 per cent neutrophils, 37 per cent lymphocytes, 2 per cent monocytes, 3 per cent eosinophils and 2 per cent bands. The hemoglobin was 15.9 gms.; sedimentation rate was 17 mms.; hematocrit was 48. The urine urobilinogen was 2.8 Ehrlich units, and the urine bile test was negative. The reticulocyte count was 3.1 per cent and the platelet count numbered 256,000. The prothrombin time was 100 per cent; serum bilirubin total 2.96 mgs., direct 1.88 and indirect 1.08. The alkaline phosphatase amounted to 9.2 phosphatase units, thymol turbidity 17 units and the cephalin flocculation 4+ in 24 hours and 4+ in 48 hours. The peripheral smear showed spherocytes and the fragility test revealed initial hemolysis at .66 per cent and complete hemolysis at .36 per cent. The fecal urobilinogen was 173.5 mgs. per 24 hours per 223 gms. of feces. The bromsulphalein test showed 12 per cent dye retention, cholesterol 300 mg. per cent and esters 70 per cent.

A liver biopsy was performed using the Vim-Silverman needle. The microscopic sections of the liver showed prominent inflammation, diffuse in type, in both the portal triads and in and around the parenchymal cells. Areas of regeneration were noted. The sections were interpreted as acute hepatitis compatible with viral infection.

The gall bladder series revealed no evidence of stones and was performed after the jaundice subsided.

During the period of hospitalization, the patient's jaundice gradually cleared. The liver function studies returned to normal range. The patient refused splenectomy and was then discharged from the hospital.

## Discussion

The jaundice in congenital hemolytic anemia is usually due to the hyperbilirubemia resulting from rapid breakdown of spherocytes. Infections are considered a fre-

\*From the Medical & Pathology Services, U. S. Army Hospital, Fort Carson, Colorado. This material has been reviewed and there is no objection to publication by the Office of the Surgeon General, Department of the Army.

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quent trigger mechanism for the acute bouts of hemolysis. Cholelithiasis and other causes of biliary tract obstruction precipitate jaundice in this disease, and may be present in about 68 per cent of the cases<sup>1</sup>.

The liver is considered approximately normal in size, function and architecture in congenital hemolytic anemia<sup>1</sup>. Since viral hepatitis is considered a common and ubiquitous disease, it must be a differential consideration in every jaundice case<sup>2</sup>. It is not difficult to conceive that this complication may be present in congenital hemolytic anemia more often than has previously been considered. This infection may precipitate hemolysis as well as the abnormal liver function which together contribute to the picture of jaundice.

#### Conclusions and Summary

The clinical picture of jaundice occurring in congenital hemolytic anemia is usually

ascribed to rapid hemolysis of spherocytes. In many instances the picture of acute jaundice may be due to cholelithiasis or other causes of biliary tract obstruction, rather than due to the excessive red cell destruction.

Viral hepatitis is a common and ubiquitous infection. It should be considered more often among other differential diseases producing jaundice in patients with congenital hemolytic anemia.

A case is reported illustrating the clinical picture created by viral hepatitis in a patient with congenital hemolytic anemia.

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## Role of Physical Medicine in Chronic Joint Diseases\*

George C. Twombly, Jr., M.D.  
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*Our profession often fails to invoke the aid of physical medicine, especially in joint diseases. Frequently we leave this valuable department for exploitation by irregular practitioners.*

PROPER use of physical agents is one of the medically accepted and indicated therapeutic approaches to complete management of the patient afflicted with a chronic joint disease. The scope of this paper will not permit a detailed discussion of indications and contraindications for use of the various physical agents in all different types of chronic joint diseases. Rather an attempt will be made to present certain basic principles and technics employed in treatment or

management of these diseases in general with special reference to arthritis. Slight modification in selection of modality and its application would obviously be necessary depending upon the specific diagnosis, symptomatology, and joint pathology encountered. This discussion will be concerned primarily with the role of physical medicine in chronic joint diseases and only a few comments will be made regarding application and use of physical treatment in acute conditions. Suffice it to say that a less vigorous and intense utilization of physical

\*Presented at the 85th Annual Session of the Colorado State Medical Society on September 22, 1955, at Denver.

agents—including heat, massage and exercise—is usually more beneficial and better tolerated during the acute phase of the joint affliction.

The mental attitude of the patient suffering from a chronic joint disease for which physical treatment is prescribed is an important and usually significant factor in the eventual success or failure of the treatment program. Some individuals have a realistic basically sound attitude and concept of their disease and appear to be aware of the objectives, limitations and contributions of physical treatment. They realize that their condition is typically of a chronic and progressive nature and thus are agreeable to accepting the physical treatment program as a useful adjunct in the management of their disease. They are willing to continue their treatment regularly and systematically and are eager to accept and recognize improvement rather than cure.

Other patients are overly optimistic and unrealistically seek a dramatic and rapid cure. Often these same persons have also sought and expected unattainable therapeutic results from other forms of treatments—such as hormone or injection therapy. They have become desperate and have developed such an unrealistic optimism that they seek and expect from a combination of physical agents a long awaited remission of all signs and symptoms of their joint disease. If their misconceptions of the powers of physical agents are permitted to exist, they usually become noticeably discouraged after discovering that a few weeks of physical treatment produced only varying degrees of improvement but no cure.

Still another group of patients are disgruntled, skeptical, and pessimistic about accepting physical treatment for even a trial period. They believe that this form of treatment will result in no objective or subjective improvement and that it is therefore unnecessary since what they really seek is dramatic permanent relief. Such conservative appearing therapy as physical and occupational therapy does not impress them and thus they feel they are wasting their time. Many of them have been under some form of periodic treatment for many months or

years and have developed a feeling of futility which makes it difficult for them to accept any additional form of treatment.

It is obvious that much of the success or failure of the physical treatment program is dependent upon the patient's mental attitude, his acceptance or rejection of therapy and his willingness to accept instruction and explanation of the objectives, limitations, and contributions of physical treatment. Unless the patient understands the chronicity of his disease and the importance of persistent and usually prolonged employment of physical agents, the treatment will fail to achieve the end results which one would expect to attain.

The main objectives of physical treatment in chronic joint diseases are to relieve pain, increase and maintain range of motion of the involved joints, relieve associated conditions—such as secondary fibrositis and myositis—and improve functional efficiency.

Most patients who are afflicted with a chronic joint disease should have at least a trial of physical therapy in addition to their other therapy. For the patient with minimal early joint involvement, proper administration of such agents as heat and exercise may partially relieve pain and act as prophylactic measures to help forestall the development of early contractures, muscle atrophy, weakness and joint restriction. For the case with long standing joint involvement, physical treatment should assist in maintaining and regaining joint range of motion, improving circulation and muscle tone and increasing functional efficiency. If the disease process is far advanced—as say in a severe generalized chronic rheumatoid arthritis with marked joint destruction, deformity and ankylosis—then, of course, the indications for and contributions of conservative physical treatment are limited. It is hoped that patients with joint disease can receive the advantages afforded by this form of therapy early before their deformities and functional restrictions reach the advanced stage where the contributions of physical treatment are much more limited.

The physician should be selective in his choice of available physical agents for chronic joint diseases as he is in his selection



of medications. Haphazard use of physical agents should be discouraged. Except in very special exceptions, a definite diagnosis confirmed by x-ray and laboratory studies as needed should be made before prescribing physical treatment for joint diseases. Such conditions as rheumatic fever, gout, collagen diseases, pyogenic or tuberculous joint involvement must be distinguished from chronic arthritis. If it is decided to use physical agents for symptomatic relief during the early stages when a physical evaluation is being made, the regime should be conservative until the diagnosis is confirmed and the response of the patient is observed.

It is important, also, to differentiate non-articular rheumatism from arthritis since the prognosis and treatment differ. Arthritis, with its actual joint involvement, may be confused with such forms of non-articular rheumatism as peri-arthritis, myositis, bursitis and fibrositis. However, it should be remembered that fibrositis, which is probably the most common form of non-articular rheumatism and affects primarily the fibrous connective tissue, is commonly associated as an accompanying abnormality and symptom of patients with both hyperthrophic and rheumatoid arthritis. This is designated as "secondary fibrositis" in contrast to the primary form without joint involvement and frequently referred to as myofibrositis or myalgia. Thus, in the physical treatment of the patient with chronic joint involvement attention should also be given to the treatment of associated conditions—such as secondary fibrositis. Heat, preferably mild heat, fibrositic massage and mild active and active assistive exercises for relief of stiffness comprise an accepted and usually effective regime of physical treatment for fibrositis.

Various forms of heat and exercise probably have more indications and afford more relief and improvement in cases of chronic joint disease than do other forms of physical treatment—such as massage. Heat itself is indicated to improve local circulation, relieve pain and as a preliminary measure to massage and exercise. The mildest form of heat which can be tolerated by the patient

and yet produce therapeutic results should be selected. Mild relatively superficial forms of heat—such as infra red, hot packs, and hydrotherapy—will often suffice. In most cases of acute joint diseases and in some cases of chronic joint diseases the localized deep heat produced by short-wave diathermy is too intense and should not be used. The physician should not only be familiar with the physiological effects of heat but he should also know the type and intensity of the heat produced by the modality which he selects. An evaluation of the patient may reveal that only mild heat or possibly no heat at all is indicated. This would be much more common in the acute than in the chronic phase. If it appears that heat administration is indicated, the physician can be guided somewhat in his selection of the modality to employ by deciding whether a localized or generalized application is preferable, whether a dry or moist heat is more desirable, whether a deep or superficial heat is indicated and whether an acute or chronic phase of the disease is present. Such an evaluation would add considerable effectiveness and practicability to the heat prescription. Caution should be used in applying generalized heat to older patients with cardio-vascular disease and in using local heat in patients with peripheral vascular impairment.

Various forms of heat commonly employed effectively in the physical treatment of chronic joint diseases include — infra-red, short-wave diathermy, moist hot packs, paraffin bath and contrast baths (usually of benefit for patients with arthritic involvement of the hands or feet), hydrotherapy—including the Hubbard Tub and whirlpool bath, the moistaire cabinet and a relatively new modality, ultrasound, which has received considerable medical publicity. The therapeutic value of these high-frequency sound waves has been under clinical and experimental evaluation and investigation in this country for about the past five years. Results of preliminary studies and more recent widespread clinical use of ultrasonics would indicate that the physician now has available another physical modality which when properly applied can produce good

results in certain cases of chronic joint disease. Aldes and others have treated large numbers of patients with hypertrophic arthritis and report favorable results. Some investigators believe that ultrasound when applied to the peripheral joints in rheumatoid arthritis provides no better results than other forms of physical therapy. Spondylitis constitutes one of the worthwhile indications for ultrasound with improvement reported in both mobility and pain relief. Many workers are of the opinion that like short-wave diathermy, ultrasound is contraindicated in the treatment of acute polyarthritis while a smaller group are still optimistic regarding its use in the acute phase of arthritis.

Aldes and his co-workers report that the combination of ultrasonic irradiation following the injection of cortisone or hydro-cortisone directly into the afflicted joints has in many cases produced more lasting improvement than when the hormone was used alone. The preliminary results would indicate that further studies and clinical evaluation of the effect of ultrasonic therapy would be indicated and worthwhile.

Even though the contributions of massage are less significant than heat and exercise in the treatment of chronic joint diseases, it does have a sedative effect in relieving pain and spasm. For best results, massage is usually preceded by some form of heat. It may do more harm than good if applied directly over the joints especially during the acute stage of the disease process. If massage is used in these conditions, it should be administered to the soft tissues proximal and distal to the involved joints. As mentioned previously, a fibrositic type of massage may be indicated in an associated secondary fibrositis.

Exercise if carefully prescribed and properly used can usually contribute a great deal for the patient afflicted with a chronic joint disease. The objectives of exercise are to increase or maintain range of motion of the joints, improve circulation, maintain and improve muscle tone and strengthen and maintain functional efficiency. One should be cautious in selecting the type of exercise best indicated for the particular patient.

Active, active assistive, passive, resistive, co-ordination, posture and general re-conditioning exercises are various types of exercise which may be helpful in chronic joint conditions.

There is a fine balance between over-exercise and under-exercise in either the acute or chronic case of joint disease. Failure to institute regular adequate exercises may contribute to the development of partial or complete loss of motion while intense over-exercise may produce actual irreparable joint damage. The patient should be properly instructed in not only the type of exercise to be done but also in the technic and number of repetitions. Exercise in such patients often produces temporary increase in pain. If this discomfort persists longer than the following day, the exercise regime is probably too intense, the repetitions too frequent or the type incorrect.

Posture and deep breathing exercises are especially valuable in rheumatoid spondylitis to discourage progressive development of kyphosis and formation of costo-vertebral ankylosis. If spontaneous fusion in one or more joints appears to be inevitable in spite of all treatment, then the position of optimum function should be considered as progressive and irreversible joint fusion develops.

Cervical traction should be mentioned especially in regard to its utilization as one of the indicated measures in treating cervical osteo-arthritis. Such cases either with or without secondary fibrositis and radiculitis often receive benefits from the proper application of cervical traction. Such treatment if it proves effective can be continued by the patient at home. An adequate x-ray examination of the cervical spine is usually indicated as a diagnostic and precautionary measure before using cervical traction.

Physical agents can be employed in conjunction with drug or hormone therapy and the effectiveness of physical treatment is frequently enhanced by the concomitant use of proper medications. Partial temporary relief of pain with salicylates, ACTH, cortisone, butazolidin and other drugs enables the patient to participate with less pain in his physical treatment program and thus

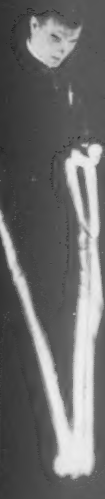
(Continued on Page 50)

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A black and white photograph of a person, possibly a child, standing behind the large, stylized letters of the word 'ACHROMYCIN'. The person is positioned behind the letters 'M', 'Y', 'C', 'I', and 'N', with their head and shoulders visible above the 'N'. The letters are white and stand out against a dark background.

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(Continued From Page 47)

gain better results especially from his exercise regime.

Physical treatment in chronic joint diseases should be administered with a long-range view of continuance of such therapy by the patient at home. Except in the case of severely involved sufferers who are unable to care for themselves and require hospitalization, the patients should be instructed and impressed from the time of the first few treatments that they must learn to be less dependent upon others and do more for themselves. They should be given an accurate description and demonstration of indicated physical treatment and informed of the intended therapeutic purpose of each part of the program. Studies have shown that patients who have had an actual demonstration of the prescribed physical modalities will be more inclined to continue with their therapy after returning home than those who received only a verbal explanation. Periodic rechecks of the patient and his physical therapy program should be

made by the physician to be certain that the patient is properly using the prescribed program and receiving maximum benefit from it.

### Summary and Conclusions

Objectives of physical treatment in chronic joint diseases are listed.

The need for making an accurate diagnosis before prescribing physical agents is discussed.

The importance of the patient's concept of his disability and willingness to accept prolonged physical treatment, including a home treatment program, is stressed.

Some aspects regarding the selection and employment of physical agents are presented.

Mention is made of the commonly used acceptable forms of heat, massage, and exercise for chronic joint diseases.

A plea for the acceptance and recognition of the objectives, limitations and contributions of physical treatment in chronic joint diseases is made.

### "THE MEDICAL WITNESS"

The American doctor, increasingly on call as a courtroom witness, is about to receive expert help in presenting his testimony.

The American Medical Association and the American Bar Association have joined forces for the first time to present a series of educational films dealing with the professional relationship of doctors and lawyers.

"The Medical Witness," a 30-minute black and white 16 m.m. film, depicts right and wrong methods of presenting medical testimony by reenacting the trial of a personal injury case. The series is being produced by the William S. Merrell Company, Cincinnati, Ohio, ethical pharmaceutical manufacturer, as a service to the medical and legal professions.

Stressing the "vital importance of these films to all doctors and lawyers," C. Joseph Stetler, head of the AMA's law department, said:

"Medical testimony is required today in from 60 to 85 per cent of all cases litigated.

"The taking of medical testimony is at the core of court operations in personal injury cases. Medical societies and bar associations are increasingly concerned about the problems which arise in the practice of presenting medical evidence through partisan experts hired by parties to lawsuits.

"The Medical Witness," the lead-off film in this series, shows doctors and lawyers how to develop expert testimony that is truly objective and scientific and in the best interests of the plaintiff, the judge and the jury.

"Our central purpose in all these films is to acquaint doctors and lawyers with each other's

professional, procedural and ethical problems in litigation and other areas where the two professions come into contact."

"The Medical Witness," Mr. Stetler said, deals specifically with questions that concern both professions, such as the following:

- 1) What is and should be the relationship between the medical witness and the lawyer?
- 2) What is the most effective way to examine and cross-examine the medical witness?
- 3) How does the medical witness support his opinion?
- 4) How does a jury react to the testimony?

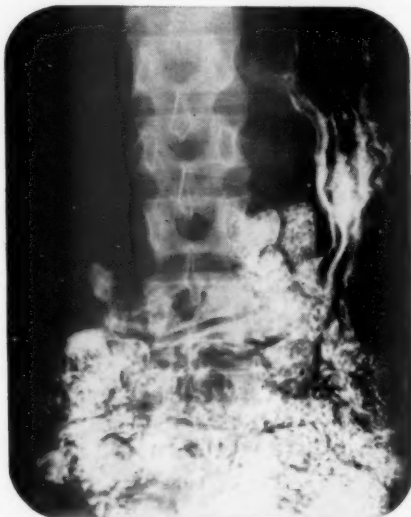
Medical societies wishing to arrange for showings of "The Medical Witness" and later films in the series, may write to the Film Library, American Medical Association, 535 No. Dearborn St., Chicago 10, Ill.

### AMEF STATE CHAIRMEN TO MEET JANUARY 27

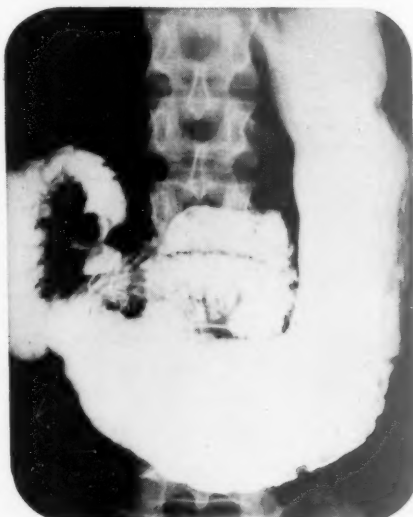
The 1957 fund drive of the American Medical Education Foundation for the nation's medical schools will officially open with a meeting for state chairmen on Sunday, January 27, at the Drake Hotel, Chicago. Emphasis at this sixth annual meeting will be on the exchange of ideas and the formation of suggested developments for the AMEF. New work kits will be distributed to state chairmen along with other materials which will be available to county chairmen and committeemen. Each state may send one delegate although any physicians interested in this effort are more than welcome to attend.



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This procedure has the additional advantage of demonstrating the patient's response to a given dosage of the drug.

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\*Roentgenograms courtesy of I. Richard Schwartz, M.D., Kings County Gastrointestinal Clinic, Brooklyn, N. Y.

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9-1-7

## The Washington Scene



A monthly news summary from the nation's capital by the Washington Office of the A.M.A.

A new venture in federal medical care—the armed forces dependents medical care program—was launched on schedule December 7, and two million dependents of servicemen became eligible for hospitalization and extensive medical care.

The "medicare" program, because it is a pioneer effort, will be watched closely by members of Congress, the armed services and the medical profession. Congress will be interested in keeping track of the cost of the program as well as the availability of care.

The Defense Department has earmarked \$41 million for the program through next July 1. Thereafter it is estimated the cost will run between \$60 million and \$70 million a year. When the program is operating at its peak, as many as 800,000 dependents not now getting care at U. S. expense are expected to be participating.

In all but a few states, provision of medical care outside military facilities is being made under agreements signed between the state medical societies contracting agent (generally Blue Shield) and the Army which is the executive agent for Defense.

The contracts run for seven months, and all states are expected to renegotiate contracts prior to their expiration next July 1. New contracts naturally would reflect the experience gained since December 7.

As the vast new project went into force, the newly created Office of Dependents Medical Care (ODMC) stressed that the law intended that civilian medical care under the program should be comparable to that provided in armed services facilities. Participating physicians receive payment in full from the government under a published schedule of allowances. ODMC said this means that the doctor will receive payment for his usual charge or the amount set in the schedule, whichever is less.

ODMC made these additional points:

1. In instances in which the physician believes that an allowance greater than that prescribed in the local schedule is justified, he should look to the government rather than the patient for payment. Provisions have been made for him to submit a special report to his state medical society and, the society, in turn, to the government.

2. Military dependents may submit as identi-

(Continued on Page 56)

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(Continued From Page 52)

fication their post exchange card, the combined post exchange-commissary-military medical care card, or the standard military dependent identification card. A special medicare card is being prepared, and after next July 1 will be the only identification allowed for this purpose.

3. There are no plans in Defense for authorizing payments for drugs, medicinals or other medical supplies, except those furnished while hospitalized or those administered directly by a physician.

4. The claim form to be used by physicians in the medicare program is called "Statement of Services Provided by Civilian Medical Sources." ODMC said sufficient supplies have been furnished by all state agents.

5. The law and implementing regulations do not permit payment for any medical care, services or hospitalization prior to December 7; this includes prenatal care.

\* \* \*

The broad outline of legislative proposals to come from the administration in newly convened 85th Congress was first sketched by HEW Secretary Folsom in several appearances before newsmen in December. Among them are: (1) federal grants to medical schools for teaching facilities, (2) authorization for smaller insurance companies to pool resources without violating the anti-trust laws in effort to encourage expansion of voluntary health insurance, (3) increased attention to problems of older persons, particularly in health and adult education, (4) continued expansion and improvement in vocational rehabilitation, and (5) expansion of staff and facilities of the Food and Drug Administration.

\* \* \*

Following up President Eisenhower's plea for increased utilization of backed up stocks of Salk poliomyelitis vaccine, Secretary Folsom told a National Press Club audience: "... we have a new danger — the danger of public apathy. It is ironic that in the face of such a dread disease, larger quantities of the vaccine are not being used." The President has urged that the vaccine be given additional groups, including young adults.

\* \* \*

**Notes:**

A "package" bill combining both basic and major medical expense insurance is being worked on by the Government for its civilian employees. . . . A special advisory committee headed by Dr. Russell Nelson of Johns Hopkins Hospital has asked hospitals to set up pilot projects to see how to revise care given long-term patients in hospitals, and also cut costs. . . . The national illness and disability survey voted by the last Congress will be supervised by Forrest E. Linder, Ph.D., former head of social statistics for the United Nations.

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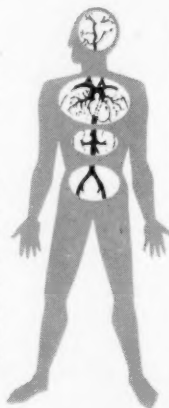
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## ORGANIZATION

## National Affairs



Medical ethics, veterans' medical care, radioactive isotopes, continuation of the AMA interim session, hospitalization for patients with alcoholism and a report of the Committee on Medical Practices were among the wide variety of subjects acted upon by the House of Delegates at the American Medical Association's Tenth Clinical Meeting held November 27-30 in Seattle.

Dr. Edward M. Gans of Harlowton, Montana, was announced at the opening session Tuesday as the 1956 General Practitioner of the Year. The annual award, carrying with it a gold medal and a citation, is presented to a family doctor selected by a special committee of the Board of Trustees for outstanding community service. Dr. Gans, who is 80 years old, has practiced medicine for fifty-one years and has been in the Harlowton area for the past forty-four years.

Strongly condemning government intervention in medicine, Dr. Dwight H. Murray of Napa, Calif., AMA President, told the opening session that "the medical profession, along with business and industry, is caught between those who desire to promote sound government programs and those who desire even more intensely to perpetuate party politics. Unfortunately, in recent years a benevolent federal government appears more attractive to the voting public than the preservation of individual freedoms. Medicine must do its utmost to reverse this trend."

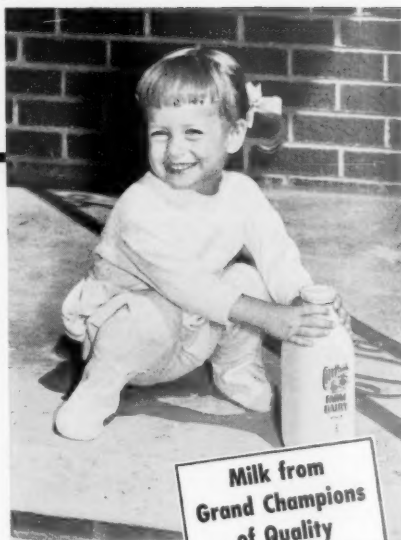
Total registration at the end of the third day of the meeting, with half a day still to go, had reached 5,191, including 2,738 practicing physicians and 2,453 residents, interns, medical students, nurses and guests.

### Medical Ethics

Subject of greatest interest at Seattle was the proposed, ten-section revision of the Principles of Medical Ethics originally submitted at the June, 1956, Annual Meeting in Chicago, where final action was deferred until the Seattle session. The proposed short version of the Principles was resubmitted, with some changes based on suggestions received since last June by the Council on Constitution and By-Laws. The House of Delegates, however, decided to

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refer the matter back to the Council on Constitution and By-Laws for further study and consideration. The reference committee report adopted by the House included the following statements:

"Careful consideration was given to the Preamble and the ten sections of the proposed Principles. The Preamble and seven of the ten sections appear to be acceptable in their present form.

"Sections 6 and 7 were not acceptable as presented either to the group which appeared at the hearing or to your reference committee.

"Out of the general discussion the reference committee received the crystallized opinion that at least four areas needed more specific attention in Sections 6 and 7. These are:

- "(1) Division of fees;
- "(2) The dispensing of drugs and appliances;
- "(3) The corporate practice of medicine;
- "(4) Greater emphasis concerning the relationship between physicians and patients.

"In addition, the reference committee felt that the wording in Section 10 could be improved if amended to read as follows:

The responsibilities of the physician extend not only to the individual but also to society and deserve his interest and participation in activities which have as their objective the improvement of the health and welfare of the individual and the community.'

"In view of the above your reference committee believes that the proposed Principles of Medical Ethics should be referred back to the Council on Constitution and By-Laws for further study and consideration of the above stated principles.

"In the short space of time at our disposal and in view of the importance of the subject, your reference committee did not deem it wise to attempt to properly phrase these concepts.

"We would also recommend that if possible this study be completed at least six weeks prior to the June session and that the new version be published in THE JOURNAL in order that all interested physicians might have an opportunity to comment thereon."

#### **Veterans' Medical Care**

The House revised AMA policy on veterans' medical care by endorsing in principle the following paragraph suggested by the Council on Medical Service:

"With respect to the provision of medical care and hospitalization benefits for veterans in Veterans Administration and other federal hospitals that new legislation be enacted limiting such care to veterans with peacetime or wartime service whose disabilities or diseases are service-incurred or aggravated."

This action eliminates the temporary excep-

ROCKY MOUNTAIN MEDICAL JOURNAL

tions which were made in the June, 1953, policy regarding wartime veterans who are unable to defray the expenses of necessary hospitalization for non-service-connected cases of tuberculosis or psychiatric or neurological disorders. In making the policy change, the House approved this supplementary statement:

"We recognize the laws and administrative extensions of the law that are now in operation. We feel that under the circumstances it will be to the best interests of the public in general, and veterans in particular, if medical societies, county and state as well as national, develop committees to assist in guaranteeing VA hospital admission to service-connected cases. While the present law exists, we should help assure that veterans whose illness constitutes economic disaster will not be displaced by those suffering short-term remediable ills which, at the worst, constitute financial inconvenience."

In another action concerning veterans, the House passed two resolutions condemning as unlawful the practice of Veterans Administration hospitals which admit patients who are covered by workman's compensation insurance or by private health insurance and which render bills for the cost of their care. Both resolutions requested the AMA to take action to bring about a discontinuance of such practices by VA hospitals, and one of them instructed the Association Secretary to obtain from each state testimony or records of each known case that violates VA Reg. 6047-D1.

#### Radioactive Isotopes

The House rescinded the June, 1951, action, which limited the hospital use of radium and radioactive isotopes to board-certified radiologists, by approving a new policy statement which says:

"(1) In any hospital in which a patient is to receive radium or the products of radium or artificially produced isotopes, there should be a duly appointed Committee on Radium and Artificially Produced Radioisotopes of the hospital professional staff. This committee should include, but not necessarily be limited to, the following qualified physicians: a radiologist, a surgeon, an internist, a gynecologist, a urologist and a pathologist. This committee should have available such competent consultation of other physicians and scientific personnel as may be required by it. Where this is not practicable, the hospital staff should consult the nearest Committee on Radium and Artificially Produced Radioisotopes.

"(2) In any hospital, the use of radium or its products and artificially produced radioactive isotopes for diagnostic or therapeutic purposes shall be restricted to qualified physicians so judged by the Committee on Radium and Artificially Produced Radioisotopes of the profes-

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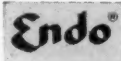
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sional staff to be adequately trained and competent in their particular use.

"(3) It is recommended that procurement, storage, dosimetry control and inventory of all radioactive isotopes for the use of the hospital staff and radiological safety control be centralized, and, where administratively possible, centralization be located in the Department of Radiology.

"(4) It is recommended that the Board of Trustees assign to the appropriate council or committee the continuous study of the problems of radiological safety control in the use of radium and its products and artificially produced radioactive isotopes for diagnostic or therapeutic purposes."

#### **Clinical Meetings**

Rejecting a resolution which recommended discontinuance of the interim sessions, or clinical meetings, the House adopted a reference committee report which said:

"We believe that the interim sessions should be continued because of the public relations value of these meetings to the Association and the educational value to physicians and the general public in the various geographical areas involved.

"It is the suggestion of the reference committee that maximum attention be given to these potential benefits in selecting a city for the interim meeting.

"It is our further recommendation that the Board of Trustees consider the advisability of holding an Interim Meeting of the House of Delegates in Chicago each November or December and an Interim Scientific Session in November or December of each year in different parts of the United States. The reference committee suggests that the views of the Board of Trustees in this regard be reported to the House of Delegates next June."

#### **Hospitalization for Alcoholics**

To implement educational approaches to the problem of alcoholism, the House approved a statement submitted through the Board of Trustees by the Council on Mental Health and its Committee on Alcoholism. The House also recommended that the statement be brought to the attention of the Council on Medical Education and Hospitals, the Joint Commission on Accreditation of Hospitals and the American Hospital Association. It includes the following:

"The Council on Mental Health urges hospital administrators and the staffs of hospitals to look upon alcoholism as a medical problem and to admit patients who are alcoholics to their hospitals for treatment, such admission to be made after due examination, investigation and consideration of the individual patient. Chronic alcoholism should not be considered as an illness which bars admission to a hospital, but rather

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as qualification for admission where the patient requests such admission and is cooperative, and the attending physician's opinion and that of hospital personnel should be considered. The chronic alcoholic in an acute phase can be, and often is, a medical emergency."

### Committee on Medical Practices

In approving a progress report of the Committee on Medical Practices, the House amended one of its directives to read as follows in order to remove any legal objections:

"The AMA representatives on the Joint Commission on Accreditation of Hospitals be instructed to stimulate action by that body leading to the warning, provisional accreditation, or removal of accreditation of community or general hospitals which exclude or arbitrarily restrict hospital privileges for generalists as a class regardless of their individual professional competence where such policies adversely affect the quality of patient care rendered. Any action taken should be only after appeal to the Commission by the county medical society concerned."

The House also approved a recommendation by the Committee on Medical Practices that a study group be formed to consider the best background preparations for general practice, and it urged that such action be implemented as soon as practicable.

### Miscellaneous Actions

Among many other actions on a wide variety of subjects, the House of Delegates also:

Urged the widest possible publication and distribution of Dr. Murray's **presidential address** at the opening session;

Pledged the full support of the Association's initiative and energy to President Eisenhower's **people-to-people program** as a means of promoting understanding, peace and progress;

Directed the Board of Trustees to continue its investigation of the practicability of developing a **statement of AMA policies** and to arrange for the periodic publication of revised versions of such a policy statement;

Commended the objectives of the American Association of **Medical Assistants** and its sincere desire to work closely with the medical profession in improving medical service and medical public relations;

Noted with pride the good work being done by the 74,348 members of the **Woman's Auxiliary**, as reported to the House by Mrs. Robert Flinders, President;

Directed the Councils on Pharmacy and Chemistry and on Foods and Nutrition to conduct a joint study of all presently available information concerning the **fluoridation of public water supplies** and to present a documented report of

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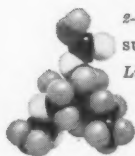
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findings and recommendations at the December, 1957, meeting;

Urged all physicians to participate actively in the formulation of medical policy for **prepaid medical care plans** which are under physician direction or sponsorship;

Changed the By-laws to extend **service membership** to reserve officers on extended active duty with the defense forces and the U. S. Public Health Service;

Changed the By-laws relating to **transfer of membership** so that an active or associate member of the Association who moves his practice to another jurisdiction may continue his AMA membership by applying for membership in the constituent association in his new jurisdiction, subject to a two-year limit on approval of his application;

Changed the By-laws so that the **election of officers** may take place at any time on the fourth day of the annual session, instead of being restricted to the afternoon of that day;

Passed a resolution calling for the American Medical Association to join with the American Hospital Association and the American Institute of Architects in their proposed **study of hospital design and construction**.

Approved the principle of a voluntary reduction in the self-assigned **quota of interns** as printed in the 1956 handbook of the National Intern Matching Program, and

Instructed the Board of Trustees to accentuate cooperation between the American Medical Association and the American Bar Association to the end that a bill of the **Jenkins-Keogh** type be enacted at the next session of Congress.

#### Opening Session

At the Tuesday opening session Dr. Murray, on behalf of the American Medical Association, presented a special citation to Ciba Pharmaceutical Products, Inc., for "the service it has performed to the medical profession and to the nation through its weekly television series, 'Medical Horizons'." At the same session the American Medical Association and four of its constituent societies—California, Arizona, Utah and New Jersey—contributed nearly \$300,000 to the American Medical Education Foundation for aid to the nation's medical schools. The AMA announced another gift of \$125,000, bringing this year's total contribution to \$343,000. The amounts presented by the four states were: California, \$132,981; New Jersey, \$25,000; Utah, \$11,870, and Arizona, \$3,695.

GEORGE F. LULL, M.D.,  
Secretary-General Manager,  
American Medical Association.

*Rerd Dr. Murray's speech entitled  
"Freedom in Medical Practice" on  
page 30 of this issue.*

ROCKY MOUNTAIN MEDICAL JOURNAL

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Pyridamine Maleate.....	3.33 mg.
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## FRIDAY, FEBRUARY 22

### Morning

#### OB-GYN CLINIC—St. Joseph's Hospital

Participants: Harold Palmer, M.D.; Carl P. Huber, M.D., Gynecologist; Henry Kempe, M.D.; Edward N. Cook, M.D.

### Afternoon—Lincoln Room

Papers by physicians appearing on the morning program.

Your medical and surgical representatives will be on hand with exhibits of their company's products and services. Be sure to visit as many of these exhibits as possible.

THE COMPLETE MID-WINTER CLINICAL SESSION PROGRAM WILL BE CARRIED IN THE FEBRUARY ISSUE OF THIS JOURNAL.

### Scientific Exhibits

#### For the Midwinter Clinical Session

Members who follow the policy decisions of the House of Delegates will recall the decision a year ago that, hereafter, Scientific Exhibits will be displayed at the Midwinter Clinical Sessions instead of the September Annual Sessions. The principal reason for this decision, it was announced, was the fact that Midwinter Sessions are always held in Denver, where ample space for exhibits is available, while Annual Sessions are held, two years out of every four, in other cities where exhibit space is at a premium.

Next month, therefore, will see the first or-

ganized display of scientific exhibits at a Colorado Midwinter Clinical Session.

The Subcommittee on Scientific Exhibits, chaired by Dr. Albert J. Kukral, has assembled a remarkable and well diversified group of twenty-five exhibits for this coming Session. If space permits, one or two additional exhibits may be added before the final program is printed in mid-January. The list to date (December 20) includes these:

"Hypothermia in Surgery" (This exhibit won the A.M.A.'s Gold Medal at the Chicago Session, June, 1956); by Henry Swan, M.D., University of Colorado Medical Center.

"Surgical Diseases of the Thyroid; Report of a 10-Year Survey at the University of Colorado Medical Center"; by William R. Nelson, M.D., Denver.

"Fibrinolysis and Hemorrhage; Diagnostic and Therapeutic Implications"; by Kurt von Kaula, M.D., and E. Stewart Taylor, M.D., Denver.

"Mercurial Diuretics"; by Jerry K. Aikawa, M.D., University of Colorado Medical Center.

"Insecticides and Other Anti-Choline Esterase Poisonings"; by Joseph H. Holmes, M.D., Denver, and Maurice D. Gaon, M.D., Rocky Mountain Arsenal.

"Renal Biopsy"; by Oren B. Gum, M.D., and Joseph H. Holmes, M.D., Denver.

"The Denver Poison Center"; by David Cook, M.D., Henry W. Toll, Jr., M.D., and Lawrence Mier, M.D., Denver General Hospital.

"Rheumatic Fever Prevention"; by the Colorado Heart Association.

"Some New Techniques of Renal Radiography"; (Continued on Page 76)

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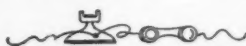
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cians for adults. It is believed that many adults do not realize the danger of contracting poliomyelitis themselves, inasmuch as they think of this disease as one striking children and young adolescents.

### Obituaries

#### LYOYD C. ALLEN

Death came to Dr. Lloyd C. Allen on September 16, 1956, just as he seemed to be recovering well from gastric surgery.

Born in Russell, Iowa, September 27, 1878, Dr. Allen received his degree of Medicine from Northwestern School of Medicine. He came to Colorado Springs in 1906 and had been practicing here since with special interest in Radiology and Anesthesiology.

Dr. Allen served in World War I and participated in most of the major engagements in Europe. The Croix de Guerre was awarded to him for his services. He is a retired Colonel in the medical reserve and has been active in the American Legion.

Dr. Allen was a member of the El Paso County Medical Society and of the Colorado and International Association of Anesthesiologists. He was also a member of The International College of Radiologists.

Dr. Allen is survived by his widow, Cathryn Allen and one daughter.

#### DENNIS L. FITZGERALD

A Colorado physician for more than forty years prior to his retirement in 1954 died on October 30, 1956, in Independence, Missouri. Dr.

Fitzgerald was born in 1871 at La Motte, Iowa. He received his M.D. degree in 1900 from the Kansas City Medical College and from Creighton University School of Medicine of Omaha in 1903. He was licensed to practice in Colorado in 1904, also was licensed in Kansas, Missouri, Nebraska and Oklahoma. He was elected to membership in the Colorado State Medical Society and the A.M.A. in 1926. He became a Life Emeritus member on December 12, 1953. He practiced in Denver, Hartman and Holly, Colorado, was a former mayor of Hartman and Past President of the Prowers County Medical Society. He is survived by his widow and a son, Dr. Robert H. Fitzgerald of Kansas City.

#### JOHN A. ALTIERI

Dr. Altieri, of 3655 Tejon Street, Denver, died on October 31, 1956, at St. Anthony's Hospital after a short illness. He was born in 1902 at Coal Creek, Colorado, and came to Denver in 1919. He received his M.D. from the Colorado School of Medicine in 1926 and was licensed that year in Colorado. He served during World War II as Captain of the Army Medical Corps. He was a member of the A.M.A., Colorado State Medical Society and the Denver Medical Society. He is survived by his father, his mother having died shortly after his death.

#### WILLIAM W. SLOAN

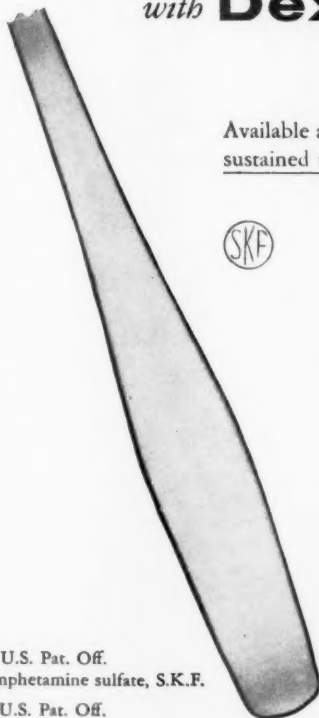
Dr. Sloan, of 65 South Wadsworth Avenue, died suddenly on November 10, 1956, at the age of 64. Dr. Sloan was born in Berthoud, Colorado, was graduated from the Berthoud High School,



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the University of Colorado and the C. U. Medical School. During his undergraduate years he was all Rocky Mountain Conference football guard. He first practiced in Mt. Harris, Colorado, and later moved to Hayden, where he was instrumental in the development of the Solandt Memorial Hospital. In 1950 he and his family moved to Lakewood. He was a member of the staffs of St. Anthony's, St. Luke's and St. Joseph's Hospitals and was a member of the Clear Creek Medical Society and the Medical Review Club of Denver. He was a Mason and a member of the Royal Arch, Commandery and El Jebel Shrine. He was also a member of Acacia social fraternity. He is survived by his wife, a son, William W., Jr., of Vernal, Utah, a daughter, Mrs. Eleanor Knoeber, of Lakewood, and four grandchildren.

### FREDERICK C. HOEBEL

Dr. Hoebel was born in Chicago, April 17, 1910. He graduated from Northwestern University in 1931 and Northwestern University School of Medicine in 1935. While at Northwestern University he served as an instructor in surgery. He became a specialist in surgery and practiced in Chicago before serving his country in World War II in Europe from 1942 to 1945. After the war he came to Colorado Springs and was an original founder of the Colorado Springs Medical Center, where he was staff surgeon. He was a member of the staff of Glickner Penrose Hospital, St. Francis Hospital and Memorial Hospital. He was Chief of Surgery in Glickner-Penrose Hospital in 1955-56. He was a member of the American Board of Surgery, the American College of Surgery, and the Southwestern Surgical Association.

Dr. Hoebel was interested in many civic affairs. He was president and organizer of the Allied Arts Council of the Pikes Peak Region. He was on the Board of Directors of the Colorado Springs Civic Players and was vitally interested in the Colorado Springs Fine Arts Center. He was an accomplished artist, which he had as his hobby.

He died of coronary thrombosis December 3, 1956, in Colorado Springs, Colorado.

Dr. Hoebel was a dedicated man to surgery. His accomplishments in the field of surgery will long be remembered by his colleagues and his patients. He will be missed greatly by not only his family but his many friends and patients everywhere.

A Frederick C. Hoebel Memorial Fund has been established to be used for medical scholarships. Any contributions may be sent to the Fund in care of Mr. Grover Scott, Treasurer, Exchange National Bank, at Colorado Springs, Colorado.

## News Briefs

### Medical Technologists Postgraduate Courses

The Colorado State Society of Medical Technologists and the University of Colorado School of Medicine announce postgraduate courses featuring Clinical Chemistry March 18 and 19, 1957, with registration limited to 75; General Problems in Medical Technology will be held March 20-23, 1957, with a registration of not more than 500.

Guest speakers will include: Bernard Longwell, Ph.D., Head of Department of Biochemistry, Lovelace Foundation, Albuquerque; Joseph Routh, Ph.D., Professor of Biochemistry and



Head of Clinical Biochemistry Laboratory, State University of Iowa; Norman F. Comants, Ph.D., Professor of Mycology and Bacteriology, Duke University; and G. E. Cartwright, M.D., Professor of Medicine, University of Utah.

Detailed information regarding this course can be had by writing Office of Postgraduate Education, 4200 East Ninth Avenue, Denver 20.

#### DIRECTORY OF PHYSICAL THERAPISTS

The Colorado Chapter of the American Physical Therapy Association announces the publication of a 1956-1957 directory which will contain information of interest to Colorado physicians and hospitals. This directory, which is being compiled by representative members of the above named physical therapy group under the supervision and approval of its medical advisors, is intended to provide readily available accurate information regarding physical therapists located in Colorado who are registered by boards approved and sponsored by the American Medical Association. Those physical therapists entitled to such classification will be listed by name, address and present site of employment. All physicians should be aware that this group of qualified physical therapists is being threatened by "fringe" groups such as is the medical profession. Groups such as masseuses, unqualified and untrained therapists, etc., are trying to invade the field of medical physical therapy. Often these fringe groups attempt to glorify their work by spurious certifications and degrees.

This up-to-date informative directory is being compiled and distributed in the interests of good medical practice. The importance of the recog-

nition of these registered physical therapists (as defined by the American Medical Association) cannot be overemphasized to the members of the medical profession and hospitals who are employing and utilizing the services of physical therapists. Other information relative to educational requirements and a brief of the code of ethics for physical therapists will be included.

These directories will be available on request to any doctor of medicine licensed to practice in Colorado. In addition, a directory will be sent to every listed hospital in Colorado.

Please address all inquiries and requests for the above directories in writing to Miss Katharine Chilcote, 3324 Olive Street, Denver, Colorado.

## Wyoming



### News Briefs

#### DR. YODER ELECTED

The Association of State and Territorial Health Officers meeting in Washington, D. C., recently, elected Dr. Franklin D. Yoder as President. Dr. Yoder is Director of the Wyoming Department of Public Health and scientific editor of the Wyoming section of the Journal.

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### Obituaries

#### CARL E. ANDERSON

Dr. Anderson passed away October 22 at the Minnesota State Hospital, Moose Lake, where he was resident physician for the past year and a half. He had practiced medicine in Great Falls, Montana, from 1938 to 1953, before moving to Moose Lake, Minnesota. He practiced briefly at the Miles City Veterans' Hospital.

Dr. Anderson received his medical degree from the Medical School at the University of Minnesota.

#### JOHN M. DIMON

John M. Dimon, M.D., of Polson, Montana, died November 5, 1956, after a short illness. Dr. Dimon was born in 1884 on a farm near Clay Center, Kansas. He was a graduate of Kansas Medical College, 1913. During World War I he served with the Medical Corps of the 18th Division of the United States Army. He practiced in Three Forks, Montana, for several years where he served as medical director of the Three Forks Hospital and as Mayor. In 1930 Dr. Dimon moved to Polson where he practiced until his retirement in 1954. Dr. Dimon was an active member of this association.

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## THE COLORADO STATE MEDICAL SOCIETY

### MIDWINTER CLINICAL SESSION; FEBRUARY 19-22; SHIRLEY-SAVOY HOTEL; DENVER

#### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** George H. Buck, Denver.

**President-Elect:** Gatewood C. Milligan, Englewood.

**Vice President:** C. Walter Metz, Denver.

**Constitutional Secretary** (three years): James M. Perkins, Denver, 1957.

**Treasurer** (three years): William C. Service, Colorado Springs, 1958.

**Additional Trustees** (three years): Lawrence D. Buchanan, Wray, 1957; Thomas K. Mahan, Grand Junction, 1958; Terry J. Gromer, Denver, 1958; Bernard T. Daniels, Denver, 1959.

(The above nine officers compose the Board of Trustees of which Dr. Buck is Chairman and Dr. Metz is Vice Chairman for the 1956-1957 year.)

**Board of Councilors** (three years): District No. 1: Osquode S. Philpott, Denver, 1957; District No. 2: Roger G. Howlett, Golden, 1959; District No. 3: Harry C. Bryan, Colorado Springs, 1958; District No. 4: Paul R. Hildebrand, Brush, 1957; District No. 5: John D. Gillespie, Boulder, 1957; Vice Chairman; District No. 6: Harvey M. Tupper, Grand Junction, 1958; District No. 7: Charles L. Mason, Durango, 1958; District No. 8:

Herman W. Roth, Chairman, Monte Vista, 1959; District No. 9: Spott A. Gale, Pueblo, 1959.

**Grievance Committee** (formerly the Board of Supervisors) (two years): Duane F. Hartsorn, Chairman, Ft. Collins, 1957; Kenneth H. Beebe, Vice Chairman, Sterling, 1957; Freeman H. Longwell, Secretary, Denver, 1958; Lawrence W. Holden, Boulder, 1957; Robert C. Lewis, Jr., Glenwood Springs, 1957; James S. Orr, Fruita, 1957; Gordon H. Vandiver, La Junta, 1958; Robert H. Smith, Colorado Springs, 1958; George G. Balderson, Montrose, 1958; Ligon Price, Mt. Harris, 1958; Walter M. Boyd, Greeley, 1958; William N. Baker, Pueblo, 1957.

**Delegates to American Medical Association** (two calendar years): E. H. Munro, Grand Junction, 1957; (Alternate, Harlan E. McClure, Lamar, 1957); Kenneth C. Sawyer, Denver, 1958; (Alternate, Irvin E. Hendryson, Denver, 1958).

**Speaker, House of Delegates:** Carl W. Swartz, Pueblo; **Vice Speaker:** Frank E. McGlone, Denver.

**Foundation Advocate:** Walter W. King, Denver.

**Executive Office Staff:** Mr. Harvey T. Sethman, Executive Secretary; Mrs. Geraldine A. Blackburn, Executive Assistant; Mr. John W. Pompelli, Executive Assistant; 835 Republic Building, Denver 2, Colorado; Telephone AComa 2-0547.

**General Counsel:** Mr. J. Peter Nordlund, Attorney-at-Law, Denver.

## MONTANA MEDICAL ASSOCIATION

### INTERIM SESSION; MARCH 29-30; MISSOULA

#### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated, the term is for one year only and expires at the 1957 Annual Session.

**President:** Edward S. Murphy, Missoula.

**President-Elect:** John A. Layne, Great Falls.

**Vice President:** Herbert T. Caraway, Billings.

**Secretary-Treasurer:** Theodore R. Vye, Billings.

**Assistant Secretary-Treasurer:** Park W. Willis, Jr., Hamilton.

**Executive Committee:** Edward S. Murphy, Missoula, Chairman; John A. Layne, Great Falls; Herbert T. Caraway, Billings; Theodore R. Vye, Billings; Park W. Willis, Jr., Hamilton; George W. Setzer, Malta; John J. Malec, Anaconda.

**Executive Secretary:** Mr. L. R. Hegland, P. O. Box 1692, Office Telephone 9-2585, Billings.

**Delegate to American Medical Association:** Raymond F. Peterson, Butte; alternate, Paul J. Gans, Lewiston.

## NEW MEXICO MEDICAL SOCIETY

### 75th ANNIVERSARY MEETING; MAY 15, 16, 17; SANTA FE

#### OFFICERS—1956-1957

Terms of Officers expire at the Annual Session in the year indicated. Where no year of term is indicated, the term is for one year only and expires at the 1957 Annual Session.

**President:** Stuart W. Adler, Albuquerque.

**President-Elect:** Samuel R. Ziegler, Espanola.

**Vice President:** James C. Sedgwick, Las Cruces.

**Secretary-Treasurer:** Lewis M. Overton, Albuquerque.

**Executive Secretary:** Mr. Ralph R. Marshall, 223-24 First National Bank Building, Albuquerque; telephone 2-2102.

**Immediate Past President:** Earl L. Malone, Roswell.

**Councillors** (three years): W. E. Badger, Hobbs, 1957; W. D. Dabbs, Clovis, 1957; W. O. Connor, Jr., Albuquerque, 1958; L. L. Daviet, Las Cruces, 1958; Aaron Margulis, Santa Fe, 1959; Junius A. Evans, Las Vegas, 1959.

**Delegate to American Medical Association** (two years): H. L. January, Albuquerque, 1958; Alternate: Earl L. Malone, Roswell, 1958.

**Board of Supervisors:** A. J. Jensen, Hobbs, Chairman, 1957; W. J. Hossley, Deming, Secretary, 1957; Milton Floersheim, Jr., Raton, 1957; George W. Prothro, Clovis, 1957; A. D. Maddos, Las Cruces, 1958; G. A. Stusser, Artesia, 1958; Louis Levin, Belen, 1958; Jack Dillabunt, Albuquerque, 1958.

**New Mexico Physicians Service:** H. M. Mortimer, Las Vegas, 1957; H. L. January, Albuquerque, 1957; Fred Harold, Albuquerque, 1957; L. L. Daviet, Las Cruces, 1957; O. C. Taylor, Jr., Artesia, 1957; C. S. Stone, Hobbs, 1957; R. P. Beaudette, Raton, 1958; R. V. Seligman, Albuquerque, 1958; Wendell Peacock, Farmington, 1958; Omar Legant, Albuquerque, 1958; Allen Haynes, Clovis, 1959; W. L. Minton, Lovington, 1959; J. P. Turner, Carrizozo, 1959; U. S. Marshall, Roswell, 1959; J. W. Hilleman, Carlsbad, 1959; Executive Director, Mr. L. J. LeGrave, 212 Insurance Building, Albuquerque, Phone 3-3188.

## THE UTAH STATE MEDICAL ASSOCIATION

### ANNUAL SESSION; SEPTEMBER 5-7; SALT LAKE CITY

#### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** James Z. Davis, M.D., Salt Lake.

**President-Elect:** Reed W. Farnsworth, M.D., Cedar City.

**Past President:** R. O. Porter, M.D., Logan.

**Honorary President:** C. N. Hay, M.D., Salt Lake.

**Secretary:** J. Poulsen Hunter, M.D., Salt Lake.

**Executive Secretary:** Mr. Harold Bowman, Salt Lake.

**Treasurer:** Alan P. Macfarlane, M.D., Salt Lake.

**Councillor, Box Elder Medical Society:** J. H. Rasmussen, M.D., Brigham City.

**Councillor, Cache Valley Medical Society:** C. C. Randall, M.D., Logan.

**Councillor, Carbon County Medical Society:** L. H. Merrill, M.D., Hiawatha.

**Councillor, Central Utah Medical Society:**

**Councillor, Salt Lake County Medical Society:** James F. Orme, M.D., Salt Lake.

**Councillor, Southern Utah Medical Society:**

**Councillor, Uintah Basin Medical Society:** T. R. Sager, M.D., Vernal.

**Councillor, Utah County Medical Society:**

**Councillor, Weber County Medical Society:** I. B. McQuarrie, Ogden.

**Delegate to the A.M.A., 1955-57:** George M. Fister, M.D., Ogden; Alternate: Elliot Snow, M.D., Salt Lake City.

**Editor of the Utah Section of the Rocky Mountain Medical Journal:** R. P. Middleton, M.D., Salt Lake.

# THE WYOMING STATE MEDICAL SOCIETY

## ANNUAL SESSION; JUNE 16-19; JACKSON LAKE LODGE, MORAN, IN CONJUNCTION WITH THE ROCKY MOUNTAIN MEDICAL CONFERENCE

### OFFICERS—1956-1957

**President:** J. S. Hellewell, Evanston.  
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# EDITORIALS

A RECENT editorial in the J.A.M.A. inspired thought about the vast implications of federal medical spending. Few citizens, even physicians, are aware of the colossal

## *Federal Medical Activities*

program which costs each wage earner about \$38.75, and his family \$54.61, annually, for federal medical

services. About one-third of the 2.5 billion-dollar total operates the Veterans Administration, the costs of which exceed the entire budget for medical services within the Department of Defense. The latter means, of course, the medical requirements of all three branches of the armed forces.

The third agency, spending over three-quarters of a billion dollars, is the Department of Health, Education and Welfare. This department's scope comprises the medical aspects of the Social Security Administration, Public Health Service, Food and Drug Administration, Vocational Rehabilitation, and the Office of Education. Beyond these, some 170 million dollars support medical activities of the Federal Civil Defense Administration, Atomic Energy Commission and foreign health operations plus some minor programs in cabinet-level departments.

Our point in this editorial is emphasis of the colossal claim of past wars upon the national budget in the form of benefits to veterans—many of which are for non-service-connected disabilities. Not one of us would deny the best of everything that our profession or our country can supply to any veteran for infirmity or disability incurred in line of duty while serving in the armed forces. However, we fail to see why Uncle Sam and his taxpayers should underwrite every physical disability, with ultimate retirement in many instances, for the balance of men's lives simply because they answered the call to arms in their homeland's time of need. Even more unreasonable

would be the care of their relatives and dependents. When is the great octopus, with tentacles about our purse strings, to cease being a political football and a monstrous liability to our national economy? Surely a logical place to exert the power of our profession against abuse of the taxpayers' medical dollar is toward limitation of veterans' care to disabilities which are service-connected!

PHYSICIANS being graduated from internship or resident training face formidable economic obstacles when they enter private practice. They are about at the end of their financial ropes.

## *A Plan For Financial Assistance*

Yet to enter private practice requires costly modern diagnostic

equipment, office space sufficient to practice adequately, plus trained help. The day of practicing from the "little black bag" is over. Today our future physicians are trained with the best of modern diagnostic equipment. After being trained with the best, to go out into practice without sufficient equipment is similar to sending a craftsman out to do a job without his tools. This would not be a sensible approach. Yet to have such equipment costs money. Unfortunately, one does not develop a practice overnight and while one is developing the practice, the fixed costs continue. These financial problems are preventing many capable physicians from entering private practice.

In order to bring benefits of medical science so evident in our institutions to the field of private practice, the Sears-Roebuck Foundation has a twofold program of financial aid to physicians. It is the Foundation's hope to provide assistance to physicians that will enable them to enter private practice in communities in need of medical

service. The second approach is to aid established physicians in improving their existing medical facilities. However, the Foundation further recognized that such a program must be based on the need of the community for physicians as well as the financial need of the physician. Since there is an abundance of doctors in our cities and a shortage in our small towns, rural localities, and suburban areas, this program aims at improving medical distribution in these localities.

In 1955 the Foundation approached and obtained the cooperation and advice of the American Medical Association in developing this program. The Trustees of the A.M.A. appointed a seventeen-man Medical Advisory Board to advise the Foundation on medical matters. As a result of this cooperation, the Foundation makes an annual grant of \$125,000 to the A.M.A. which forms the nucleus of a revolving fund. The Foundation will make such grants for ten years, provided there is a need.

So that the revolving fund can expand, it was felt that aid should be in the form of loans instead of grants or interest-free loans. Grants do not develop a feeling of fiscal responsibility so essential in a free society. The interest-free loan, while eventually being paid back, would take the maximum time and would not provide the revolving fund with additional funds for expansion beyond the Sears grants. The wisdom of the interest feature can be seen in the future growth potential of the fund. In twenty-five years, the Foundation grant to the fund of \$1,250,000 will be worth approximately \$9,000,000 which will provide a tremendous impact in the improvement of medical distribution and facilities. Thus, loans are ten-year, unsecured, supplemental loans at interest rates ranging from zero to six per cent, depending on rapidity of repayment. These loans are designed only to make up the difference between what can be obtained through normal lending agencies, what the physician has, and what is necessary to enable the physician to complete his plans.

Physicians interested in entering private practice and those in private practice who need supplemental funds for building, remodeling, purchasing equipment, or funds

for costs normally associated with opening a practice, should look into the possibility of obtaining a Sears-Roebuck Foundation loan, particularly if they plan to establish their practices in small towns, suburban areas, and rural localities. Applications can be obtained from any State Medical Society.

The Foundation has made loans totaling \$261,000 in the short time the program has been in operation. These loans have been made in eighteen states. Two loans, affecting three physicians, have been made in Colorado. In both cases loans have been made to aid in improvement of existing medical facilities.

Applications are now being received for consideration in the first half of 1957. The deadline for applying is April 1, with final decisions being made by June 15. Graduating interns and residents will find this an ideal time to apply, since the money would be available upon graduation if chosen by the Advisory Board. Those applying should have their plans in concrete shape and should submit them as soon as possible so the Medical Advisory Board can give them proper consideration.

SAMUEL P. NEWMAN, M.D.

**I**F you ever face medicolegal problems — and what doctor does not? — both you and your lawyer should try to arrange time to spend March 22 and 23 in Denver.

### *You and Your Lawyer*

The American Medical Association will hold three medicolegal symposia this year including the Denver meeting for Western States. Such subjects as "Trauma or Disease?", "Medical Expert Testimony", "The Medical Witness" and a demonstration of introducing in court of chemical tests for intoxication will be included. Bar Association representatives and physicians will be equally welcome.

However, accommodations are limited so advance registration applications are urged. They should be sent to the Law Department, A.M.A., 535 North Dearborn, Chicago, 10, Illinois, together with the \$5.00 registration fee which covers luncheons and a later copy of the institute's proceedings.



# ARTICLES

## Canada, Your Northern Neighbor\*

C. Norman Senior  
SEATTLE, WASHINGTON

*Here is an entertaining and inspiring opportunity better to know  
our northern neighbor.*

IT IS a pleasure to revisit Montana, a State whose history is closely interwoven with that of Canada. In parts, our histories are inseparable. This fact is delightfully developed in a book which many of you have perhaps read or will shortly read. It is called, "The Whoop-up Country," and tells the story of the old days, of the 60's, the 70's, and the 80's of the last century along the borders of Montana, Alberta, and Saskatchewan. It is gratifying to note that the close association between our two peoples which began in those early days is still being cultivated and fostered today. Your State travel bureau recorded a year or so ago that a high percentage of the visitors or tourists, who come into this State, come from Canada. One of my duties, as Canadian Consul General in these four northwestern states, is to cooperate in every way possible to encourage and stimulate these intercommunications of the peoples of our two countries.

It is, of course, a distinct privilege to talk about my country, Canada, in such distinguished company. Of course, we have physicians in Canada and they are just as excited about state medicine as you are. Medicine in Canada has some notable achieve-

ments to its credit. Such names as Osler and Penfield, Banting and Best, must be known to most of you. Our great medical schools are also not without fame in this country. Twice I have attended meetings of McGill alumni, once in San Francisco and once in Seattle. I shall be surprised if there are not, in this gathering, two or three McGill graduates. Needless to say, Canadians are interested in the progress of medical science. Promotion of medical science is, I understand, the essential object of this gathering.

But, not all Canadians are physicians. We have French Canadians; we have farmers, miners, and lawyers; we have a small percentage of Eskimos and Indians and rather more than half of us descend from British stock. We are only 16 million people altogether, which is less than one-tenth of the population of the United States. But, it may surprise you to know that one in every four Canadians derives his living from industry, or manufacturing, if you prefer that term. That is exactly the same percentage as prevails in the United States. So, if you regard this country as an industrial nation, Canada is equally entitled to be so described. We are no longer a nation of backwoodsmen and farmers.

The first thing I would like you to appreciate is that Canada is a nation, in all that

\*Address by C. Norman Senior, Canadian Consul General, Seattle, at the banquet of the 78th Annual Meeting of the Montana Medical Association, Great Falls, September 13, 1956.

the words imply. We are a completely self-governing, democratic nation. We have our own Canadian Parliament elected by the people of Canada. It is the only Parliament entitled to make laws for Canadians and to levy taxes upon them. We have our own currency, our own national bank. We have our own diplomatic representatives, ambassadors, ministers, and even consuls, like myself, in some 40-odd nations throughout the World. We make our own declarations of war, and I hope we never have to make any more of them, and we negotiate and sign our own treaties.

A century ago, what is now Canada consisted of a group of British colonies. Go back another century and it will be equally true that what is now the United States consisted of a group of British colonies. Times have changed and both of us are today completely free, self-governing nations, although Canada did not need a war or a revolution to achieve the status that it now has. Canadians are, however, loyal subjects to the Queen. Canada is a monarchy and we firmly believe that our type of limited constitutional monarchy is as fine and as effective a system of democracy as that presented by your own republican institutions.

Our relationship to the Queen was demonstrated in the formal procedure of the coronation ceremonies which took place in Westminster Abbey three years ago. With the Prime Minister of Canada standing close beside Mr. Churchill, signifying the loyal assent and approval of the people of Canada, Elizabeth II was crowned specifically as Queen of the United Kingdom, Queen of Canada, Queen of Australia, and so on down the line through the several nations of the commonwealth. This involves no subservience on our part to any other member of the commonwealth. The classical language is that the member nations are equal in status and in no way subordinate to another. In any aspect of their domestic or foreign affairs, both Great Britain and Canada are democracies. The people rule; the Queen reigns.

We find merit in the fact that our laws are enacted in the name of the Monarch

and are administered in the name of the Monarch. A Canadian act of Parliament begins as follows: "Her Majesty, by and with the consent of the Senate and the House of Commons of Canada, doth enact . . ." Similarly, when a common drunk is haled before the Magistrate in Lethbridge or Regina, or any other Canadian city, the charge when read to him, if read in full, is as follows: "That he was drunk and disorderly, contrary to the peace, order, and dignity of her Majesty, the Queen." We believe in that symbolism. We believe that it lends dignity to the government and majesty to the law.

Having now discussed Canada's constitutional position and political system, I should like to take a few minutes to comment upon her economic strength. To make the present situation clear it seems desirable to go back to the second World War, in which Canada raised more than a million men for her armed forces and ended the War with the third-largest Navy and the fourth-largest Air Force in the World. Canada paid for her own war effort completely. We were not recipients of Lend-Lease. On the contrary, we contributed in supplies and materials, foodstuffs and ammunitions, and money, to our allies just as much in proportion to our population as you did. Insofar as the United States and Canada were concerned, we cooperated in the production of war equipment on the basis of the Hyde Park agreement, under which each country contributed to the utmost of its ability to the common cause that which it was best able to provide. At the end of the War, the accounts were straightened out. They were in fact very closely in balance, but the final settlement was the payment of approximately one million dollars by the United States to Canada. At the end of the War, we had a national debt of around 19 billion dollars, but all of it owing by the government of Canada to the people of Canada. Since the War, we have reduced our national debt to about two billion dollars. The magnitude of that achievement you may be better able to appreciate if I point out that, since your population is ten times as great as ours, you would have had

to reduce your national debt by 22 billion dollars to achieve a comparable result.

Furthermore, that reduction has been achieved, notwithstanding the fact that Canada has continued, since the War, her program of financial and military aid to her former and present allies and to the underdeveloped lands of Asia and other parts of the World. Our contributions to that program of helping our war-ravaged allies to recover and of helping the underdeveloped nations to take their rightful place in the World's economy have been on a per capita basis about the same as yours. I believe that our foreign aid programs during and since the War have aggregated about eight billion dollars. Again, using the population yardstick, that is equivalent on a per capita basis to about 80 billions by the United States. I hope you will agree that we have been pulling our weight in proportion to the riches with which Providence has endowed us.

This is one facet of Canada's economic strength. It fits into this context because, as I have mentioned, at the end of the War some 19 billions of dollars of government bonds were held by the Canadian people in the portfolios of our banks and financial institutions and in the private savings of individuals. At the same time, we had some hundreds of thousands of ex-servicemen seeking civil employment. What happened was very simple. The men and the money joined forces in a new era of development. The Imperial Oil Company of Canada set out to find oil in Alberta and struck it rich. The Hollinger Gold Mining Company set out to prove up the iron resources of Quebec and Labrador. They found enough to justify the investment of several hundred million dollars in railways, terminals, mine machinery and housing for workers in one of the bleakest climates of the World. Our governments, federal and provincial, combined forces in the construction of a trans-Canada highway. The federal government and the Ontario Hydro-Electric Commission joined forces with their counterparts in the United States to deepen the St. Lawrence Waterway and as a useful by-product to develop that river's vast power potential. The Alu-

minum Company of Canada committed half a million dollars to the establishment of a refinery on the Pacific Coast about 400 miles north of the border. To do so, it dammed a river flowing eastward and compelled its waters to fall 5,000 feet through two 10-mile tunnels to the Pacific where one of the largest hydro-electric plants on the continent has been built.

Well, let's not go into too much detail. That is the sort of thing that has been going on. Every year since the War new capital has gone into Canadian development at the rate of four to six billion dollars a year. Most of this has been Canadian money, the savings of Canadian people. The ratio of investment to national income has been more than 20 per cent. That is a higher ratio than prevails in the United States. Our people have been investing in capital formation, one-fifth of their combined income. Occasionally, I hear on this side of the border that Canadians are timid souls and that the so-called Canadian boom has been largely financed by American money. Some of our own people have heard that saying, and we have had an agitation against the so-called invasion of American capital. It is appropriate to mention this subject to an American audience because sometimes a Canadian orator or writer will go to exuberant lengths in order to emphasize a point. It would not be for me to comment upon the kind of speeches made by American public men, in the heat of political controversy, but I leave it to you as to whether they also occasionally overstate their case.

I do not want you to be misled by comments you hear from across the border about the invasion of American capital. Those who are critical have a natural apprehension lest we lose control of our economic affairs to our much larger and richer neighbor. No Canadian wishes to see that come about. That is a point of view with which you, as westerners, conscious of the concentration of wealth in your eastern states, can probably sympathize. But, both you Americans and we Canadians are well-conditioned to political controversy and we have learned that, in the long run, it is the facts that prevail. So let me give you the

facts as published by your own United States Department of Commerce. Direct American investment in Canada during the past five years has ranged from 300 millions to 460 millions of dollars a year. The total Canadian investment has ranged from four to six billion dollars a year. In other words, the American contribution to Canadian development, as measured in dollars, has been less than 10 per cent. On that basis, I do not think you will find any justification for the idea that Canadians are lacking in faith and confidence in their own country.

What makes the American share seem so large is that your money has gone into such spectacular new fields as iron and oil and into the establishment of branch factories of your great American industries for the purpose of catering to the Canadian market. But, it was still the Imperial Oil Company of Canada that did the pioneer work in Alberta and the Hollinger Company that proved up the iron deposits.

Let me change the focus for a moment. The total United States investment in Canada is around 10 billion dollars. That is more money than Americans have invested in any other country in the World, and I might repeat the challenge I issued to a group of bankers not too long ago and ask whether you know of any place where the United States has 10 billion dollars invested to a better advantage in or out of your own country. In the same context may I point out that Canada is your best customer. We are buying American products at the rate of about four billion dollars a year. You hear a lot about the importance of your trade with Latin America. Our 16 million Canadians buy more goods from this country than do the 120 million people of South America.

Now let us skip on to another interesting fact about the relationship between our two countries. We are both members of the United Nations and are both members of the North Atlantic Treaty Organization. Those are the two keystones of Canadian foreign policies. Next, Canada and the United States agreed some 12 or 13 years ago that the defense of this continent was a single problem and our two governments set up

the permanent Joint Board on Defense. The senior officers of our several armed forces sit together in permanent consultation planning the measures for the defense of the North American bastion of freedom.

An expression of that agreement which is very much in the public eye this year is the construction of the two systems of warning and interception of aerial attack, the distant early warning line which your people are building around the perimeter of the continent and the mid-Canada line, which we are building, about half-way between the 49th parallel and the Arctic Ocean. Canada has an Air Division and, of course, an Army Brigade Group in Europe while our naval forces on the Atlantic come under the over-all NATO command. Perhaps, even more important is that our Royal Canadian Air Force conducts a training program for NATO, under which no fewer than 4,000 air crew from other members of the Alliance have been trained in Canada at Canadian expense. Again I emphasize that Canada believes in pulling her weight in any enterprise to which she lends her hand.

But returning to the question of direct Canadian-American relations, please bear in mind that because of your great investment in Canada, because of the front-rank place that Canada occupies in your export trade, because of our joint membership in NATO, because of our partnership in the defense of this continent, you—as Americans—should pay close attention when you hear from Canada a suggestion that some economic policy advocated by your Congress may have injurious effects upon Canada. You have too big a stake in Canadian prosperity to enter heedlessly upon any program that may do us harm. But, don't misunderstand. I am not suggesting that you are heedless of our interests. Quite the contrary. Only a year or so ago, a spokesman for the great smelting interests of Montana, discussing the depression of the market for base metals due to importation of low-priced lead and zinc from various foreign sources, was careful to say that the Canadian mining interests were just as badly hurt as your own and that he had no idea of advocating any policy that would injure Canada. My point



is that sometimes in reviewing the World picture, your representatives can easily overlook the special position of your close and friendly neighbor to the north. We recognize your problem as you recognize ours and all we ask is that when you hear us speak up that some proposal will hurt us, you pay heed lest you do yourselves more harm than good by impairing the economy of your best customer.

And now I come to what is technically known as the peroration. I have to confess that I have not the gift of perorating, possessed by your distinguished Governor Clement of Tennessee. So, I will content myself with a summing up which I hope will not be like the summing up described by Lewis Carroll, whose character "summed up to far more than the witnesses ever had said." Here you have, alongside of you, as your northern neighbor, a completely self-governing constitutional monarchy, consisting mainly of two great European races, the British and the French. All of them are loyal to the Queen and all of them are firmly devoted to the principles of democracy. If at all points the two races do not see eye to eye, they have been conditioned by their history to a gift of tolerance and compromise which is perhaps Canada's outstanding national trait.

Canada is a country of untold riches in its natural resources. It is abreast of the modern trend, to urbanization and industrialization to the same degree as the United States. In our relationship with this great republic, we are your best customer as you are ours. More merchandise is shipped and more people travel across the border which joins, not divides, us than across any other international border in the World. We are both members of the United Nations. We are both members of the North Atlantic

Treaty Organization and we have joined together in a program of continental defense in which our forces intermingle freely and the program of defense is laid down by a joint board consisting of our senior staff officers. What you may lack in raw materials for defense we have in abundance. What we may lack in highly developed manufacturing facilities for the production of the implements of defense, you have in abundance. In times of crisis, it has been agreed that these resources are as available to one as to the other. We have had experience in operating under that policy.

We Canadians are just as proud of our system of government as you are of yours and we have reached the stage where there is no serious suggestion on either side of the line that we shall do other than continue in our own ways but cooperating in all that is for our mutual good. Being the smaller in population and economic strength, we Canadians are just a bit sensitive in our relations with our vastly greater neighbor to the south. For that very natural sentiment, we are sure that you forgive us just as we have learned to be only amused at the occasional suggestion from Americans with more good will than understanding, that you would like to admit us to the Union.

President Harding, who was the first American President ever to visit Canada, said on that memorable occasion that Canada and the United States are the two best neighbors in the World. They are the kind of neighbors, he said, who can call over the back fence and borrow half a loaf of bread or a jug of milk. Our two peoples have only one supreme interest and that is that we shall preserve on this earth a state of society in which we can rear our children amid the blessings of peace. Long may our friendship endure.

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#### **NATION TO OBSERVE "MEDICAL EDUCATION WEEK" IN APRIL**

Attention of the nation will be focused on the achievements of U. S. medical schools during Medical Education Week, April 21-27. Sponsors of the Week, whose representatives met recently to develop program plans for national and local participation, are the Association of American Medical Colleges, the American Medical Association,

the Student American Medical Association, the Woman's Auxiliary to the AMA, the American Medical Education Foundation, and the National Fund for Medical Education. Each of the sponsoring organizations is preparing suggested activity formats for state and county medical societies, medical schools and allied groups. These materials will have been distributed earlier.



# Management of Vascular Injuries\*

Ben Eiseman, M.D.  
DENVER

*Severe artery injury may be obscure. Outcome in this type of case depends primarily upon diagnostic acumen of the first physician to handle case. Early recognition can save life as well as limb. Even non-penetrating crushing injuries may cause extensive arterial obliteration resulting in loss of the extremity. Thrombectomy, end to end arterial anastomosis, or vascular graft are important therapeutic measures. Vessel repair technic is critical in relation to good end results.*

THE physician who accepts responsibility for the definitive care of the injured can no longer ignore his responsibility for recognition and treatment of vascular injuries. In the past the practitioner and the general surgeon have regarded the field of vascular surgery as the exciting, yet unobtainable, young glamour girl of the surgical specialties. Depending upon the doctor's age they have considered with varying degrees of regret that such an exotic creature was not ordained to come into their professional lives. Indeed, their only mutual contact seemed to be via articles, dramatic announcements and illustrations in popular lay magazines. Such an attitude is fortunately no longer justifiable. The recent advances in cardiovascular surgery have brought with them lessons and technics that must be familiar to anyone assuming definitive care of the injured. Their application will depend upon training and experience of the physician and equipment available to him, but the principles cannot be ignored. The injured patient's life and limb may well depend upon their proper understanding. The

purpose of this presentation is to describe these fundamental principles in management of vascular injuries as they apply to civilian practice.

## Diagnosis of Vascular Injuries

Successful management of an injury to an artery critical for limb survival requires its immediate recognition and prompt surgical care. Since most arterial injuries are associated with major damage to adjacent bone, nerve and tendons, the uninformed physician may temporarily overlook the more emergent arterial injury while attending to the more obvious but less vital damage to bones or surrounding soft tissue. In a compound injury such a severed vessel usually will be evident because of obvious severe hemorrhage, but following non-penetrating trauma there may be no external loss of blood. In the latter type of wound early diagnosis of arterial insufficiency to a limb may be overlooked. Recognition of arterial insufficiency is usually not difficult if the possibility is considered, for the patient will complain of pain in the extremity (should he be not obtunded by his other injuries); the pulses distal to the injury will be absent; and the extremity will be cool and pale in color.

The ideal time for recognition of arterial injury is during the first evaluation of the injury, for thereafter the wound may be en-

\*Presented at Annual Meeting of the Wyoming State Medical Society, Moran, Wyoming, June 28, 1956. The author is Associate Professor of Surgery, University of Colorado School of Medicine, and Chief, Surgical Service, Denver Veterans Administration Hospital.

closed with bandages, splints, or casts which make the diagnosis more difficult.

#### **Immediate Care**

Complete laceration of a major artery may result in remarkably little immediate blood loss. The ends of such a severed vessel will go into spasm which may effectively seal the artery and minimizes hemorrhage. Wounds caused by blunt objects or low velocity missiles result in maximum vasospasm of this type. On the other hand, stab wounds from knives, icepicks or from shattering car windows, produce a cleanly incised wound and more violent bleeding.

Immediate hemostasis from a lacerated artery usually can be effectively attained by the judicious use of local pressure with a sterile dressing and elevation of the extremity. Only rarely is a tourniquet necessary and then should be kept in place no longer than two to three hours. When the tourniquet is released the physician should anticipate extensive bleeding from the wounded area and should have adequate blood replacement therapy available. The danger of profound shock is great at this moment.

Although wound packs may occasionally be justified as a temporary first aid measure to control hemorrhage, such a method is undesirable since they may obscure underlying bleeding, will complicate debridement, and if used as a definitive method of wound therapy will frequently sponsor infection, secondary hemorrhage, and the production of traumatic aneurysms.

Ligation of a major vessel critical to an extremity as a first aid measure following trauma should be avoided. Experience in Korea and in World War II has shown that strenuous efforts to preserve and repair arteries rather than their ligation will preserve many extremities.

As in other types of major trauma all necessary supportive measures should be employed and infection combated by the early administration of antibiotics.

#### **Vascular Injuries Requiring Immediate Operation**

Following either open or closed trauma, if there is evidence of arterial insufficiency

in an extremity, the earliest possible operative exploration is indicated. Even when there is some doubt as to vascular damage, more is to be gained by exploration than by watchful waiting. The decision to operate is particularly difficult following non-penetrating trauma when several mechanisms may produce interruption of arterial flow and each may produce irreversible ischemic damage.

Vasospasm alone can be so severe following blunt, non-penetrating trauma over a vessel that the artery, though not actually severed, is in such severe spasm that its lumen is obliterated. Thrombosis may then occur in the contused section of the vessel. Fig. 1 illustrates the arteriogram and photograph of such a patient who suffered damage to his brachial artery at a point not critical for limb survival but which resulted in permanent segmental occlusion of the vessel in the mid-portion of the upper arm. Resection of the thrombosed area and pri-

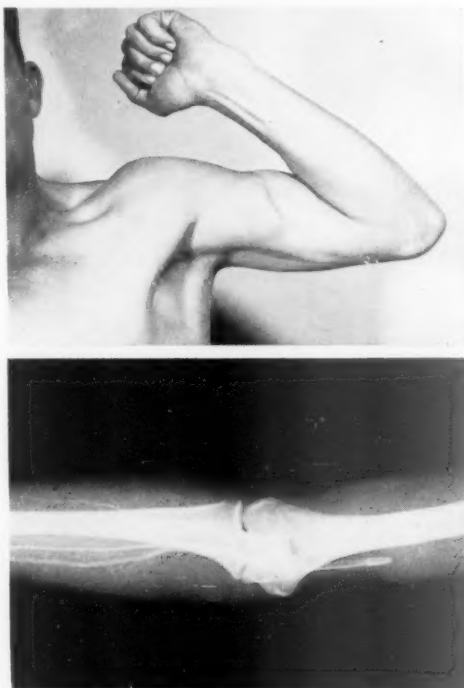


Fig. 1. Photograph and arteriogram of patient with a segmental obstruction of the brachial artery following non-penetrating trauma. Resection and end-to-end anastomosis re-established good peripheral arterial supply. Six months following injury.

mary suture anastomosis was required to re-establish normal vascular supply to the forearm and hand.

Perivascular hematoma may produce such profound arterial spasm that vascular insufficiency will result. Immediate evacuation of such hematomata and proper debridement obviate these sequelae.

Non-penetrating, crushing injury of the forearm or the calf may produce such acute edema that the arteries within these tight fascial compartments are completely obliterated. Following crushing injuries of the calf, the anterior tibial artery may be so involved, and if not immediately unrelieved, result in the loss of the extremity. An accompanying fracture need not be present. If the emergent nature of such an injury is recognized, complete restoration of vascular supply can be attained by longitudinal incisions in the constricting fascia which will allow herniation of the underlying edematous muscle and relief of constriction on the arteries.

In open or compound injuries, the decision for operation is simplified by the need for debridement, but the surgeon's attention must not be diverted toward the repair of accompanying bone, tendon, and nerve damage, and so to overlook the more emergent vascular trauma.

#### Technical Principles

As in all other types of surgery, good exposure and hemostasis is mandatory. Bleeding can usually be controlled by pressure, first with a sterile gauze and finally, as the bleeding point is more clearly visualized, by a finger tip occluding the arterial or venous laceration. Should such exposure be impossible, the artery should be exposed on each side of the injury and bleeding controlled by non-crushing hemostatic clamps or tapes. Occasionally separate incisions are required above and below the site of trauma to expose the vessels.

With the bleeding controlled, wound debridement can be undertaken to evacuate all periarterial hematomata which may produce occluding arterial spasm. If pulsatile flow through the artery does not then occur, a gauze moistened with 1 per cent papaverine or procaine should be left over the

damaged vessel for approximately five minutes. If, after this period, there continues to be evidence of arterial obstruction, an arteriotomy should be performed through a longitudinal incision between controlling umbilical tapes. Occasionally a thrombus is found at the site of injury, thrombectomy performed, and the vessel repaired. If, however, no thrombus is found or the vessel remains in occluding spasm it may be necessary to resect the damaged segment of vessel and to perform an end-to-end arterial anastomosis or insertion of a vascular graft.

Blood vessels, like nerves, are often irreparably damaged far beyond their gross limits of damage. Particularly following high velocity gunshot wounds, the tremendous energy of the missile may be transmitted circumferentially, resulting in death of tissue, which when superficially inspected immediately after injury seems undamaged. Surgical debridement of a damaged vessel should therefore be generous. If a vascular graft, anastomosis, or suture repair is to be employed, all surrounding devitalized tissue must be excised, for surrounding infection dooms such vascular repair to failure and may result in secondary hemorrhage or in the formation of a false aneurysm.

The actual repair of a vascular laceration requires experience and practice but certain principles should be mentioned. Ligation of large arteries should be avoided when possible, but when inevitable the ligature should be placed as far distal as possible to avoid needless sacrifice of collaterals. The ligature should be placed as close to the last major collateral vessel as possible in order to avoid a needless blind cul-de-sac which would absorb the pulsatile energy of the arterial stream and thereby diminish blood flow through the collaterals.

If a vessel must be ligated it should be ligated and divided, not ligated in continuity, lest distal arteriospasm further diminishes blood flow.

In the past a great deal has been written about the advisability of ligating the accompanying vein when major arterial interruption is necessary. Recent experimental and clinical experience has shown that this is both unnecessary and harmful. The accom-

panying vein should be left intact. The open end of a major artery should be sutured with an over and over everting whip-stitch rather than utilization of a simple ligature which might destroy accompanying collateral vessels and might slip and allow secondary hemorrhage. In smaller vessels a suture ligature placed distal to a well placed tie will prevent dislodgement of the ligature by arterial pulsations.

Small holes in large vessels should be closed with an everting running or interrupted arterial silk suture, performed in a dry field between occluding tapes passed beneath the vessel above and below the site of injury. All efforts should be made to avoid sacrificing the vessel. If a segment of a vessel must be excised the ends should be debrided, cut cleanly, and vascular continuity re-established, either by end-to-end anastomosis or by use of a bridging graft. If a primary anastomosis is possible it should be performed under a minimum of tension lest the suture line break down in the postoperative period. If a graft is necessary a segment of reversed autogenous saphenous vein may be used to bridge defects in the superficial femoral artery, in the popliteal artery, or for arteries in the upper extremity. In larger vessels a suitable prosthetic or arterial homograft is required. Such procedures require considerable technical experience.

A vascular graft or anastomosis line must be covered by healthy, viable, soft tissue following debridement and repair and must not be left exposed or surrounded by infection. Postoperatively the area of repair should be immobilized for a period of seven to ten days.

#### **Vascular Injuries in Which Operation Should Be Delayed**

Immediate operation is inadvisable in vascular injuries of the extremities where limb viability is unquestioned, since time should be allowed for the maximum development of collateral blood supply before vascular repair is undertaken. Lumbar sympathetic block or surgical interruption should be used during the interim in injuries of the lower extremities, and chemical sympathetic

block in the upper extremities. Arterial interruption at a level not critical for limb survival may result in subsequent symptoms of arterial insufficiency and claudication, but operation on such problems is more safely performed as an elective procedure—not immediately following injury.

Following arterial injury there may be extravasation of blood into the surrounding soft tissues and subsequent development of a traumatic or false aneurysm. Such aneurysms usually result from an incomplete severance of a major vessel where a thrombus temporarily arrests hemorrhage but where secondary bleeding into the soft tissues may occur. Clinically such aneurysms do not become evident for several weeks or even months following trauma. The area of injury may gradually become swollen, tense, hot and tender and may resemble a wound abscess. Obviously, incision and drainage must be avoided! Careful examination will reveal a pulsating mass with a localized systolic hum. Only rarely when these aneurysms are rupturing or growing at an alarming rate need operation be done as an emergency procedure. It is preferable to perform a sympathectomy and wait three weeks or more for the development of sufficient collateral channels, so that at time of excision of the aneurysm and of the surrounding damaged vessel the chances of producing gangrene of the involved extremity will be minimized.

When both a major artery and its accompanying vein are injured there occasionally develops a vascular communication between the two. Such arteriovenous fistulae are usually associated with penetrating injuries causing incomplete arterial severance and are most frequently associated with severe injuries of the surrounding bones and soft parts. There may be little or no evidence of such fistula formation for two to eight weeks, at which time a pulsating mass is noticed over the area of injury. Differentiation from a traumatic aneurysm may be difficult and occasionally the two may co-exist (Fig. 2). With an arteriovenous fistula there is a continuous hum, there are overlying dilated veins, and compression of the artery proximal to the fistula will cause

slowing of the pulse (Branham's sign). If the fistula is sufficiently large there may be associated cardiac dilatation and failure. Sympathectomy should be performed prior to the excision of such fistula and operations for their repair undertaken electively and only under optimum conditions.



Fig. 2. Radiologic visualization of a traumatic aneurysm with a co-existing arteriovenous fistula following a gunshot wound of the thigh. The aneurysm and fistula were excised and vascular continuity re-established eight weeks following surgery.

### Conclusion

It has been emphasized that vascular trauma commonly may accompany other soft tissue and bone injury, and that every physician directing the care of an injured patient must be familiar with the diagnostic features of arterial injury. Extent of the operative repair of such defects that the physician chooses to undertake depends upon his surgical training and experience, but each physician should be familiar with the principles of vascular surgery that underlie the proper management of these injuries. No longer is it justifiable to assume a fatalistic attitude toward injuries of major vessels, for recent advances in vascular surgery now permit the salvage of both life and limb following injuries that formerly were considered hopeless. Good results depend primarily upon the diagnostic acumen of the physician who first sees the injured person. No amount of clever surgical manipulations in the late post-traumatic period can atone for delay in diagnosis or improper early care.

## Health of A Mining Community

George Moore, M.D.\*

DURANGO, COLO.

and

Simon Abrahams, M.D.\*

DENVER

*This paper points to a new objective of community health action in isolated rural communities.*

IN the beautiful Rico Mountains of eastern Dolores County, Colorado, the village of Rico lies isolated and supreme, a mining community of 400 people. This village, although now somewhat forgotten by most Coloradoans, can boast of fabulous times at the turn of the century. At that time, 8,000

inhabitants led by gold and silver discoveries comprised the metropolis. Opera houses, blocks of saloons, theaters and shops bustled with throngs of rich prospectors and miners. Gold deposits dwindled and the population soon vanished. By 1950, there were little more than 250 people left in the 8,737 foot high town. Within the past two years, the Rico-Argentine Mining Co. renewed operations and as the demand for minerals in our national defense program grew, so grew

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Rico. Lead, zinc, and sulfuric acid refining operations provided new hope for Rico's economy. Today, the majority of Rico's inhabitants are employed by the Rico-Argentine Mining Company.

The need for more labor became acute and Navajo Indians were recruited to work in the mines and on other processing operations. At present, 130 Indians from Arizona and New Mexico live and work in Rico. The influx of Navajos presented a problem to most of Rico's native population as disease which the Indians were afflicted with on the reservation soon made their appearance among the town's population.

By February, 1956, Dr. E. G. Meritt, a physician from Dolores, Colorado, who spends half day a week in Rico by contract with the mining company, reported three cases of pulmonary tuberculosis among the Navajo miners to the San Juan Basin Health Unit. Considerable concern was expressed by the public for protection and a program was launched to screen the entire population for chest disease.

#### **The Plan**

Death rates from tuberculosis among American Indians have generally been extremely high. De Lien and Dahlstrom<sup>1</sup> reported in 1946 a death rate of 200 per hundred thousand contrasted to 40 per 100,000 among non-Indians in 1948. Whereas mortality rates have decreased progressively among non-Indians, the Indians' mortality rate has shown a plateau. Hadley<sup>2</sup> reports a case rate in 1953 for tuberculosis of 1,042 per 100,000 in Navajo Indians compared with 66 among the general population of the United States. Tuberculosis, then, was considered to be problem No. 1 to meet in the health project. In view of the expense encountered in providing a chest x-ray survey and the need for health education among the Indians in particular, a multi-phasic health survey was decided upon. Smillie<sup>3</sup> has shown the merits of a multiphasic health project for selected groups of people who are in immediate need of medical supervision. They are greatly benefited both from a medical care and a health education point of view.

Accordingly, the Health Unit in cooperation with the local part-time physician planned not only to offer 4x5 chest x-rays to the population but to offer urinalyses for sugar detection (diabetic screening), urine sedimentation tests<sup>4</sup> (gonorrhea), VDRL qualitative and quantitative serological tests (syphilis), Vollmer tuberculin tests on children (tuberculin sensitivity), and physical examinations for nose and throat diseases, heart ailments, and skin diseases. Such a multiphasic screening project would provide rapid and relatively inexpensive means for screening common disorders that one would expect to find in a transient mining community. The local physician would diagnose and follow the elicited suspects.

Solicitation of support for the project met with most favorable response. The State Health Department provided a mobile chest x-ray unit, material, and some personnel. Dr. Simon Abrahams was available from the Public Health Service for physical examinations and consultation. The San Juan Basin Health Unit furnished a physician, nurses, laboratory and material. Mr. J. J. Seerley, manager of the mining company, provided facilities and volunteer workers as well as 100 per cent cooperation from the employees. Mrs. Ralph Van Arsdale, postmistress, offered workers and interpreters as well as full support from the native population. The date of the project was set for March 28, 29, and 30.

#### **Results of the Survey**

Three hundred and forty-four inhabitants (about 81 per cent of the population), were screened during the survey. This included all of the 130 Navajo Indians and their families. Age and race data of the population screened are shown in Table 1.

Indian families tended to be larger and younger than non-Indian families and among adult Indians, men were more numerous than females as compared to the non-Indian population.

#### **Tuberculosis**

Chest x-rays (4x5) were obtained on all screenees including small children and infants. It was to the technician's credit that all x-rays were satisfactory for reading. Of

**Table 1**  
**POPULATION DATA OF RICO SCREENEES**

Age Groups	White		Indian		Total
	Male	Female	Male	Female	
Under 15 .....	32	39	37	21	129
15-24 .....	18	6	14	7	45
25-34 .....	22	16	17	13	68
35-44 .....	25	15	12	3	55
45-54 .....	11	10	5	0	26
55-64 .....	11	3	1	0	15
65 and over .....	2	4	0	0	6
	121	93	86	44	
	214		130		344

**Table 2**  
**TUBERCULOSIS SUSPECTS FOUND ON X-RAY SCREENING AND BY PHYSICAL EXAM\***

Racial Group	No. Screened	No. of Cases	Percentage of Cases
Indian .....	132	3	2.3
Non-Indian .....	214	5	2.3

\*Includes Indians found by local physician in February and sent to hospital.

the 344 x-rays taken, six individuals were found to have either definite or suspicious films for tuberculosis. Only one of this group was Indian, a girl of 13 years of age, and she had been diagnosed previously by the local physician. Three white males found as tuberculosis suspects on the survey were aged 35, 40, and 75 years. Two white females were aged 25 and 37. Rates of suspected disease are shown in Table 2.

Vollmer patch tests were performed on children under 12 years of age and were correlated with chest x-ray findings. Table 3 indicates the tuberculosis infectivity rate.

In spite of the low infectivity rates for both races, actual clinical disease rates were high, indicating low resistance to tubercu-

losis. None of the children found with positive skin tests were afflicted with the disease.

#### Heart Disease

Chest x-rays also detected cases of heart disease and these problems were verified by physical examination in most instances. Fifteen persons screened showed some type of aortic or cardiac defect. Most cases were in the older age groups although four of the total group were rheumatic heart disease suspects in the younger age groups. Table 4 illustrates the prevalence of suspected heart disease by race.

Age-specific prevalence rates of heart disease suggest rather high disease rates among

**Table 3**  
**VOLLMER PATCH TEST RESULTS FOR TUBERCULOSIS BY RACE**

Record Group	No. Tested	No. Positive Tests	Percentage of Pos. Tests
Indians under 12 years .....	52	4	7.7
Non-Indians under 12 years.....	46	2	4.3

**Table 4**  
**HEART DISEASE SUSPECTS BY RACE**

Heart Disease	No. of Cases	Indian	
		Age-specific Group	% of Cases
Rheumatic Heart Disease.....	1	124 (less than 44 years)	0.8
Arteriosclerotic Heart Disease.....	0	6 (more than 43 years)	0.0
Hypertensive Heart Disease.....	1	6 (more than 43 years)	16.7
Heart Disease	No. of Cases	Non-Indian	
		Age-specific Group	% of Cases
Rheumatic Heart Disease.....	3	173 (less than 44 years)	1.2
Arteriosclerotic Heart Disease.....	5	41 (more than 43 years)	13.2
Hypertensive Heart Disease.....	5	41 (more than 43 years)	12.2

the natives. Rheumatic fever is a hazard for Indians and natives alike.

#### **Diabetes**

Clinitest examination of urine found only one diabetic suspect among the 223 adults examined. This was a white male, age 50, who was a visitor from another town.

#### **Venereal Disease**

Two hundred and twenty-three tests for syphilis were performed and three syphilitic reactors were found. Out of 92 adult Indians screened, two or 2.2 per cent were found positive and from 141 whites, one or 0.7 per cent was found positive.

Urine sedimentation tests for gonorrhea on 223 adults disclosed no cases of gonorrhea, acute or chronic. This interesting observation from the laboratory was confirmed by physical examination. One hundred and fourteen males were examined clinically during the survey and none showed clinical gonorrhea. Two cases of phimosis only were found by physical examination.

#### **Eye, Ear, Nose and Throat Diseases**

Among the 249 children and adults examined for eye, ear, nose and throat diseases, 75 were found afflicted. Chronic tonsillitis led the list with 27 cases. Other conditions found in order of decreasing frequency were vitamin deficiency (12), upper respiratory infections (11), pterygium and chalazion (10), conjunctivitis (4), ceruminosis (3), simple goiter (3), foreign body in the eye (3), glaucoma (1), and otitis media (1). The unusually high prevalence of respiratory infections, the rigorous climate, crowded conditions, and vitamin deficiencies favor the spread of Group A streptococcal infections and subsequently of rheumatic fever as noted above. Particular problems of interest were goiter and pterygium. Vitamin deficiency in relation to the strain of living at high altitudes and low socio-economic level is an apparent problem. The dust from the mining operations may account for the high prevalence of pterygium and chalazion. During the survey, three persons were found to have foreign bodies in their eyes.

#### **Skin Diseases**

Sixteen various skin diseases were elicited from the screenees. Two hundred and forty-

nine persons were examined for skin disease and 36 showed some type of skin affliction. Leading the list of skin ailments was pediculosis capitis with seven cases, all among Indian children. In second place was recent burns, most with secondary infection (6). Primary skin infections involved five children. Other types of skin diseases included verrucae vulgaris (2), erythema multiforme (2), Raynaud's phenonoma (2), lichenoid dermatitis and anhidrosis (4), phimosis (2), vitiligo (1), eczema (1), ichthyosis (1), scrofula scars (1), cervical cyst (1), and leukoplakia (1).

#### **Follow-Up**

By June 30, 1956, all screenees found with a suspected disorder or illness had been brought to diagnosis and treatment. Almost all cases were referred to Dr. E. G. Merritt, the part-time physician, and followed carefully with the assistance of the Health Department. Four of the tuberculosis suspects have been admitted to sanatoria for tuberculosis. One male was found negative for pathology and the last was diagnosed as having silicosis. Family contacts yielded no further cases either on the survey or on follow-up. Heart disease suspects were confirmed by complete physical examination and all cases are under supervision. EENT and skin cases have also been screened and are under medical care. One syphilitic and the possible diabetic were lost to the health department but tracers have been sent to forwarding addresses.

#### **Discussion**

In a mining community where full-time medical and hospital facilities are nonexistent the health survey has proved a valuable tool to screen the population for common disorders and improve health conditions. The educational value of such a project is apparent. The high incidence of disease caused indirectly and directly by strain points to the effects of altitude, weather, lack of fresh and frozen foods, low socio-economic level and inadequate housing for the majority of the people. These problems will be studied in a follow-up progressive program by the Health Department to afford some measure of pre-

(Continued on Page 150)

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(Continued from Page 147)  
vention and control in the future. Public health in cooperation with private medicine is providing some answer to our isolated community problems of health.

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Appreciation is extended to the following for their assistance in the survey: Navajo interpreters—Bessie Billie and Leo Billie; Mining Company officials—J. J. Seerley, Charles Sessler, and Bill Battige; and Rico volunteers—Mrs. Calvin Trimbale, Mrs. George James, Pat McIntosh, and Mrs. Ralph Van Arsdale.

## Use of Fiorinal for Postpartum Pain And Discomfort\*

William G. Caldwell, M.D., and  
Bruce Meyers, M.D.

LOS ANGELES

*Sometimes overlooked are the subjective complaints and neurologic pathways involved following labor. Here is a drug which appears to be effective and without side effects.*

LULL and Hingson<sup>1</sup> stated that the control of pain in labor and for delivery often takes precedence over the control of pain during the puerperium. In obstetrics, following delivery, an oxytocic is usually given which sometimes intensifies the cramps and pains of uterine contraction and these pains should not be neglected. It is necessary to review the patient's subjective complaints following delivery against the background of the neurologic pathways involved. It is also necessary to consider forms of management in accordance with pain responses during recovery periods following general anesthesia, deep sedation and general anesthesia, or regional nerve block analgesia. It is observed that patients who have been comfortable during labor and delivery, will usually be in a state of discomfort and pain when the effect of the nerve block suddenly wears off. The primipara who has had a wide episiotomy or who had a laceration which involved rectal mucosa with cervical laceration and interstitial tears and sub-muscularis tears and stretching as a rule

has more pain than the multipara who has delivered a small baby through a spacious introitus in record time without even mucosal separation. There are many factors which may influence the frequency, intensity and duration of the pains and discomforts of the puerperium. A description of these considerations will not be entered into here because this has been adequately done by Lull and Hingson and others.

For centuries men have sought for methods of alleviating pain and the search continues to find pain relieving drugs which are effective and non-toxic. The literature contains much information concerning various drugs and combinations of drugs for the relief of pain. The specific purpose of this study was to determine the effectiveness of a combination of drugs compounded of 50 mgs. Sandoptal (isobutyl-allyl-barbituric acid), 200 mgs. of acetylsalicylic acid, 130 mgs. of acetophenetidin and 40 mgs. of caffeine<sup>†</sup>, in controlling the chief symptoms of discomfort seen in obstetrical cases during the postpartum period. Friedman, et al<sup>2, 3</sup>,

\*From the St. Anne's Maternity Hospital, Los Angeles, California.

<sup>†</sup>Known as Fiorinal, marketed by Sandoz Pharmaceuticals.

Kibbe<sup>4</sup>, Blumenthal, et al.<sup>5</sup>, Ogden<sup>6</sup>, deSola Pool and Friedman<sup>7</sup> and Weisman<sup>8</sup> reported excellent results with this combination in the treatment of tension headache. Ryan<sup>9</sup> reported beneficial results in the pain experienced in cases of nasal sinusitis and acute otitis media and head pain associated with the common cold. Caldwell<sup>10</sup> reported a high per cent of results in treatment of dysmenorrhea.

In this study, 125 patients were treated for postpartum pain. Ninety patients complained of perineal pain from sutures, 66 had postpartum cramping, 27 postpartum headache, 7 postpartum rectal pain, 4 breast engorgement pain and 25 insomnia. (See Tables 1 and 2).

### Material

One hundred and twenty-five unselected consecutive cases were delivered vaginally. Of this series, 109 were primagravidas and 16 were multigravidas. The youngest patient delivered was 14 years of age, the oldest 39 years and the average age was 21.5 years.

Observations were made over a period of three and one-half months. Since St. Anne's Hospital is an approved teaching hospital, confined to the care of unwed mothers and their infants, all patients studied in this

series received similar prenatal care, similar medication during labor and the same routine during the postpartum period. The results obtained were not influenced by different types of prenatal care, labor room sedation or postpartum routine.

Approximately 95 per cent of 125 cases studied were delivered under saddle block anesthesia and the remaining 5 per cent received an inhalation type anesthetic. All cases were under the direct supervision of the Resident Staff and the attending Teaching Staff.

### Method of Study

Patients received Fiorinal for their chief complaint, although in most cases, minor complaints were also present. However, for sake of accuracy, the symptoms listed in Table 1 pertain to number of the cases giving said "chief complaint" as their main symptom. As to be expected, the "chief complaint" of perineal pain at the site of the episiotomy and postpartum cramping, by far led the list of complaints.

### Dosage

In the beginning of the study an arbitrary dosage schedule was chosen, but it was found that the dose had to be individualized. In all cases an initial dose of two tablets of Fiorinal was given at the time of

TABLE I

Number Patients Treated With Floralin	Ave. Age.	Symptoms	Number Patients Complain- ing	Excel- lent	RESULTS				Dosage	Side Effects
					Good	Good	Fair	Poor		
125	21.5 yrs.	Perineal pain from sutures	90	32	14	37	5	2	2 tablets twice a day for first post- partum day. 1 tab. 3 times a day second postpartum day. 1 tab. 2 times a day third post- partum day.	One case com- plained of moder- ate urticaria, one moderate and two mild nausea, five cases of moderate and two cases of mild perspiration.
		Postpartum cramping	66	35	15	13	3	--		
		Postpartum headache	27	5	4	10	4	4		
		Postpartum rectal pain	7	4	1	1	1	--		
		Breast engorge- ment pain	4	2	1	1	--	--		
		Insomnia	25	10	8	4	1	2		

TABLE II

### Results in Treatment of Chief Complaint in Percentages

Results	Perineal Pain from Sutures	P O S T P A R T U M			Rectal Pain	Breast Engorgement Pain	Insomnia
		Cramping	Headache				
Excellent	35.5%	53.2%	18.5%		57.1%	50%	40%
Very Good and Good	51.1%	42.3%	51%		28.4%	50%	48%
Fair	5.5%	4.5%	1.4%		1.4%		4%
Poor	2.2%		1.4%				8%

the chief complaint. Following doses varied with each patient, some requiring as much as three doses of two tablets each on the first day, others requiring only one tablet repeated on the first day. All doses were kept at least four hours apart.

The average individual dosage was 1.8 tablets. The individual response to the medication was interesting in that practically all cases studied showed excellent response to the first day's medication, permitting a gradual decrease in the dosage regime.

#### Side Effects

The almost complete absence of side effects was dramatic, with only one patient complaining of moderate nausea, seven of moderate to mild perspiration and one case of urticaria, which was transitory. The absence of nausea, so often encountered in other analgesics used for postpartum discomfort, was an outstanding finding.

#### Discussion

Satisfactory control of postpartum pain and discomfort with the use of Fiorinal tablets is well demonstrated in the series studied. A great majority of the patients studied were primagravidas, in which more discomfort is usually anticipated. All patients studied had episiotomies and routine repairs. All patients received the same kind of routine prenatal care, analgesia during labor, anesthesia and postpartum care. All cases were under the supervision of the Resident Staff and the Attending Teaching Staff.

Effectiveness of the medication is demonstrated by its control of the "chief complaint" by the second postpartum day, thus permitting a gradual decrease in the dosage. The lack of side effects was an outstanding observation of the study.

#### Summary

1. One hundred twenty-five unselected cases were studied to determine the effectiveness of Fiorinal on controlling postpartum pain and discomfort.

2. Most cases of the series (109) were primagravidas, while only 16 were multigravidas.

3. The age incidence varied from the age of 14 to 39. Average age was 21.5 years.

4. The chief complaints were listed according to their frequency of appearance.

5. Dosage varied considerably, but overall individual dose per patient was 1.8 tablets. Duration of days of medication averaged three days.

6. Lack of side effects clearly demonstrated.

7. Medication proved effective for secondary complaints such as insomnia, postpartum rectal pain and breast engorgement pain.

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#### DALLAS SOUTHERN CLINICAL SOCIETY TO HOLD ANNUAL SPRING CONFERENCE

Eighteen distinguished guest speakers will provide up-to-date information in practically all fields of medicine at the 26th Annual Spring Clinical Conference of the Dallas Southern Clinical Society, to be held at the Statler Hilton Hotel, Dallas, Texas, March 18, 19 and 20.

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# Unsuccessful Suicide with Chlorpromazine

Robert J. Spratt, M.D., and  
Earl F. Dean, M.D.\*

WARM SPRINGS, MONTANA

**W**ITH the advent of tranquilizing drugs in treatment of mental disorders, many patients who would formerly have been hospitalized are now being treated successfully on an ambulatory basis. Because these patients usually administer medication to themselves, and therefore may have at their disposal large quantities of certain drugs, it is desirable for the physician to know what can be expected from these compounds if taken in large doses. The following case report describes a patient who took fifty 100 mg. chlorpromazine tablets at one time in an admitted suicide attempt.

## CASE HISTORY

A 40-year-old married woman was admitted to the Montana State Hospital at Warm Springs in 1954 and again in 1956. When first seen she was described as emotionally unstable with compulsive and depressive tendencies. Extensive psychotherapy at this hospital, and subsequently at the State Mental Hygiene Clinic at Butte, produced only marginal results. Two years later she was readmitted, this time in a borderline pre-psychotic state. Following two months of insulin therapy she showed only mild improvement. She was then started on a 300-400 mg. daily dose of chlorpromazine, which was gradually increased to 2000 mg. She continued to improve even when the dose was reduced, and was released to the Mental Hygiene Clinic for further therapy on a dosage of 200 mg. t.i.d.

During the week of June 1 she saw her physician twice, and he prescribed Gantrisin and forced fluids for her complaints of fever, chills, dysuria, and backache. On the morning of June 8 the patient still complained of a backache and general malaise. That afternoon she was discovered unconscious by her husband who promptly called the family physician. Her blood pressure was found to be 160/60, pulse 78, and respiration 16. There was a flaccid weakness of the muscles, an absence of deep reflexes, and her pupils were constricted.

At 4:45 that afternoon she was admitted to

the Montana State Hospital. Her blood pressure was 120/70, pulse 100, and respiration 26. She was semi-conscious and responded weakly to commands, her speech was very slurred and her reflexes were still absent. Ten minutes after admittance she again lapsed into unconsciousness. Shortly thereafter there was a twitching of the face and neck muscles and a severe convulsion. Following this seizure the patient was given 1000 c.c. of glucose with 5 per cent saline i.v. Her blood pressure fluctuated but did not change significantly after she was hospitalized. The pulse rate dropped from 100 to 74 in the three hours from 5:00 to 8:00 p.m. and then remained fairly constant during the night. At 9:00 p.m. she began to respond to questions, and although confused, was aware of her surroundings. She tended to be incoherent, and when left alone would lapse into semi-consciousness. Her blood pressure was 115/80, her respiration was normal, and her color good. She was placed under oxygen and given 3 gr. Dilantin orally followed by 1000 c.c. glucose with 5 per cent saline and 5 c.c. Plebex i.v. at 50 drops/minute.

At midnight she took 20 c.c. of orange juice. An hour later she appeared to be somewhat better and asked to have the oxygen discontinued; 1½ gr. Dilantin and 100 c.c. orange juice were administered at 2:00 a.m. At this time she said she did not want to live and was sorry that the chlorpromazine had not killed her. Two hours later she was very disturbed and wanted to be left alone. At 4:00 a.m. the i.v. infusion of glucose and saline was discontinued. By 7:00 a.m. the patient became talkative and cooperative. In two hours she was fully awake and coherent; her reflexes were present and her respiration normal. She said that she had swallowed the entire contents (fifty tablets) of a bottle of chlorpromazine. During the day she was given 1000 c.c. glucose and 5 per cent saline i.v., t.i.d.; 2 c.c. Plebex q.i.d.; and 1½ gr. Dilantin t.i.d.

Hospitalization was continued through June 10 and she was discharged to her husband on June 11 without medication. At this time she was lucid, speech coherent, and her reflexes were normal. A month later she was interviewed at the request of her hospital physician. When asked why she had taken the chlorpromazine tablets she said that she had no reason to ex-

\*Dr. Spratt is Superintendent and Dr. Dean is Clinical Director, Montana State Hospital, Warm Springs, Montana

cept that she wanted to die. She had taken her regular dose of two tablets, and then felt unable to stop herself from taking the rest. When asked about her present condition she said, "I feel like a million dollars. I haven't had a bad day. I feel like I did before I got sick in 1948 when my father died." She was apparently under no tension and had taken no medication since her release.

### Discussion

The lethal dose of chlorpromazine in humans has not yet been established. Four cases of acute chlorpromazine poisoning have appeared in the foreign literature: a 21-month-old child who swallowed 625 mg.<sup>1</sup>; a woman who took 750 mg.<sup>2</sup>; a woman who took forty tablets of unknown strength<sup>3</sup>; and a patient who took fifty-two tablets of unknown strength<sup>4</sup>. Each of these patients suffered from symptoms similar to those reported here, and all recovered—the child in a week; the others in a few days. In two of these cases,<sup>2, 4</sup> there were severe cardiovascular symptoms. To our knowledge, the case presented here is the first of its kind to appear in American literature, and the only one in which the taking of such a large dose can be authenticated.

The large overdose of chlorpromazine obviously depressed those parts of the central nervous system influencing consciousness and the peripheral reflexes. At the same

time, however, the drug had relatively little effect on the so-called "vital signs." The patient's skin color, pulse, and respiration remained essentially unchanged. The fact that her blood pressure was not greatly affected may be accounted for, perhaps, by the patient's being put to bed shortly after she took the drug. This procedure greatly lessens the possibility that the hypotension occasionally seen in chlorpromazine treated patients will develop.

Had this patient been treated with stimulants such as amphetamines, caffeine, or strychnine in the absence of specific indications for them, the convulsion she experienced when unconscious could well have had serious consequences. Her treatment was conservative; her recovery was almost spontaneous. The ease with which her recovery was brought about illustrates that vigorous emergency measures were not only unnecessary but unwarranted; simple supportive measures were completely adequate.

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## Medical Care of the Chronically Ill and Aged\*

Jacob Horowitz, M.D.  
DENVER

*Chronic disease in the aged and the disabled constitutes a problem, economic and social, as well as medical. A community program depends for its success upon cooperation of physicians, medical schools, and health officers.*

IT IS estimated that in this country there are about twenty-eight million people suffering from chronic disease or disabling con-

\*An address given before the Colorado Hospital Association Convention, October, 1955. The author is Director of Hospitals of the Denver Department of Health and Hospitals.

ditions at any one time. Chronic illness has been broadly defined by the Commission on Chronic Illness as all impairments or deviations from normal which have one or more of the following characteristics:

1. They are permanent.



2. They have a residual disability.
3. They are caused by non-reversible pathological changes.
4. They may be expected to need a long period of supervision, observation or care.
5. They require special training of the patient for rehabilitation.

The most common and significant of the chronic diseases or long-term illnesses are those usually designated by the term "degenerative diseases." These include four major groups:

1. Circulatory disorders, such as cardiac conditions and arteriosclerosis.
2. Metabolic disorders, such as diabetes and anemia.
3. Malignant growths, such as cancer.
4. The arthritides, which include rheumatism and arthritis.

Almost all of the long-term illnesses, which constitute an immense burden upon society, are associated with old age. The incidence of these diseases rises sharply after the age of 40.

In Colorado, the State Health Department has developed the following figures:

From 1900-1950—the general population multiplied by two and one-half times, but the group 65 and older multiplied eight and one-half times.

In 1900—2.6 per cent of the population was 65 or older.

In 1950—8.7 per cent of the population was 65 or older.

These latter figures are in accord with the general statement that since the turn of the century, the population in this country has doubled, but the number of persons over 65 has quadrupled. Our nation has been lavish and imaginative in the past, in producing facilities for the full development of our children. Now it must devote its efforts to its senior citizens. However, the medical care of the aged is complicated by some of the changes that take place in old age. For instance: Reactions to injury become less rapid. Pain is often lacking. Symptoms are much less conspicuous.

This results in two obstacles to good medicine:

1. Old patients wait too long before consulting a physician, and

2. The physician faces a more subtle diagnostic problem.

Other phenomena of old age are: Slow repair following injury; i.e., it takes longer for broken bones to mend. Tolerances for stresses are diminished, the aged cannot adjust as well as younger people to extremes of temperature, dehydration, etc. Certain drugs are poorly tolerated by the aged; i.e., barbiturates excite and confuse them. Treating the aged is made more difficult because old people become self-centered. They are intense individualists.

The primary problems of medicine have changed, particularly in the last decade. These changes have come about as a result of new surgical technics, conquering of many of the infectious diseases, the new era of physiologic understanding made possible by hormones (such as cortisone) and scores of other advances in medical research. Now, of necessity, medicine must change from a primary emphasis on the immediate manifestations of acute disease to an all-out attack on their late sequelae and on the problems of chronic illness. Whether he likes it or not, the average general practitioner now spends three-fourths of his time treating patients who are chronically ill or who have emotional problems involving social, marital or economic pressures. This percentage will undoubtedly increase in the future.

In acute illness, where the onset is sudden and the course of illness usually brief, the patient and the family often have sufficient resources, both financial and emotional, to cope with the situation. However, in chronic illness, the onset is insidious and by definition the course of illness is long. Families are drained emotionally and economically. Associated with all serious long-term illness are dislocations in relationships between the patient, the family, and society. In treating acute illness, the doctor can provide virtually all the care with assistance from the nurse, because the family is able to cope with the situation. In chronic disease, much more is needed than the skills of the doctor and the nurse.

#### **Chronic Illness—Social and Economic**

Dr. John Romano, Professor of Psychiatry

at the University of Rochester, has said, "Those who care for the long-term patient find that they are concerned not only with the disease, but increasingly with the patient and his disability, with the members of the patient's family, and with the community to which the patient and his family belong." In other words the problem of chronic disease is social and economic as well as medical. The physician now needs help from the patient's family and from the many health, welfare and social agencies in the community. He needs the skills of other members of the health team including the social case worker, the rehabilitation experts, physical therapists, occupational therapists and visiting nurses. All of these were of relatively little importance in acute illness, but are of prime importance in the care of the long-term patient.

In the past, it was chiefly the end results of chronic illness which attracted the attention and care of the physician. Today, the beginnings of long-term illness are becoming apparent to the doctor, because of early detection of disease through the technique of multiple screening. Mass surveys for disease detection have become increasingly popular in recent years. With advanced techniques for discovery of illness through reliable tests, a person today can be tested for two, three, or half a dozen different diseases at one time. Tests for tuberculosis, syphilis, diabetes, anemia, blood pressure, vision and hearing can now be applied to the detection of disease or disability in large groups of the population in a single program. A single specimen of blood, for example, may be tested for evidence of syphilis, diabetes and anemia. A single chest x-ray may be examined for evidence of heart and lung disease in addition to tuberculosis. In a program combining these tests, the tests can be given one after the other by non-medical technicians as the people pass along a line. The expected benefits from such a program are the discovery of early stages of chronic disease among many apparently well persons with subsequent referrals to physicians for diagnosis and treatment. As a result of multiple screening programs there develops a closer relationship between patient, doctor and the com-

munity. Such programs designed to discover chronic conditions before they have developed into later stages, when treatment would be less effective, can reduce the cost of chronic illness both in terms of money and human misery. Early disease treatment decreases the length of medical care and hospitalization. This results in reducing the financial burden on public agencies having to care for indigent patients.

Other approaches to the medical problem of chronic disease are through education and prevention. We must teach the medical student by example, as well as precept, the satisfaction that comes from aiding the chronically ill patient to meet his total life needs. The student must learn to appreciate the self-satisfaction which comes from taking the old hemiplegic out of a wet bed, teaching him to walk and to talk, to meet the needs of daily living; and finally to live outside an institution and be a person again. The student must be taught that as a physician, he should be concerned not only with the illness, but even more so with the person who has the illness. To keep people alive without giving them something to live for is not enough.

The long-range approach to chronic disease must be preventive. Yet probably in no other health field is available knowledge so little applied as in the prevention of chronic illness. Some chronic illnesses and impairments can be entirely avoided. Good obstetrical care will reduce the occurrence of cerebral palsy. Wearing protective goggles on certain jobs will protect against blindness. Avoidance of obesity will substantially reduce the likelihood of diabetes, hypertensive heart disease and other chronic illnesses. Care and prevention are inseparable. The basic approach to chronic disease must be preventive and prevention is inherent in adequate care of the long-term patient.

However, we must not overlook the positive accomplishments in the field of medicine. Life expectancy has been extended from 49 years in 1900 to almost 70 years in 1955. In 1900, there were 17 deaths in every 1,000 persons. Today, there are 9 deaths in every 1,000 persons.

Infant mortality has been reduced. In 1900,

there were 162 deaths within the first year of life per 1,000 newborns. Today, there are less than 30 deaths per 1,000 newborns. The pneumonia death rate has dropped from 152 to 12 per 100,000. The tuberculosis death rate has dropped from 194 to 10.6 per 100,000. In surgery 40 years ago, one out of every four persons succumbed following a major operation. Today, there is only one operative death per each 100 cases. Likewise, today we have seen the almost complete elimination of such diseases as cholera, yellow fever, smallpox, diphtheria, scarlet fever, rickets, et cetera.

### **Mental Health**

This paper would not be complete without touching on the subject of mental illness. At the present time, mental illness costs the taxpayer one billion dollars annually, not to mention the enormous losses in manpower. Six hundred fifty thousand mental patients occupy more than half of the nation's hospital beds. Originally, the mental hospital rendered custodial care to its patients. Today, it serves as an educational facility for the training of many more psychiatrists, psychiatric nurses and auxiliary personnel. Today, psychiatry has emerged from the mental hospital. We now find psychiatric units in general hospitals. Such facilities help to remove the stigma of mental disease and serve to house those patients with mild forms of mental disorders without resorting to hospitalization in state institutions. This latter development serves a dual purpose. It brings to the mental patient the many medical talents available in general hospitals and benefits the medical and surgical patients by the addition of psychiatrists, psychologists and other trained mental health specialists.

Much work must be done in the fields of mental health to find answers to some pressing problems such as:

1. Better methods of admission to mental hospitals.
2. More and better trained personnel.
3. Arousing of public interest and understanding.
4. Reintegration of mental hospitals into the orbit of general medicine.
5. Disposition of senile patients who are not psychotic.

### **6. Education and research.**

As a result of the dramatic advances in medicine and surgery, hundreds of thousands of persons now leave our hospitals alive who, with the same illness or injury several years ago, would have died. However, many of those who leave the hospital also leave with a serious residual illness or disability.

The solution of the complex and inter-related problems of chronic illness necessarily requires a cooperative program of the people in our community. Since medicine is primarily responsible for the addition of years to life, it cannot escape the responsibilities for helping to resolve the medical-social problems of an aging population.

### **Summary**

The problem of chronic disease is economic and social as well as medical. Therefore, an adequate community program must be built on a total patient care basis; it must include preventive, medical and rehabilitative aspects integrated into a working whole and with an overall goal of restoration of the patient to a state of greatest possible usefulness to himself and society. It must include the paying as well as the indigent patient and must make it possible for the middle income patient to receive care at moderate cost, thus maintaining his financial independence as long as possible.

Such a program should comprise the following activities:

1. Early case finding (through multiple screening).
2. Diagnosis. Medical care after diagnosis; this means uninterrupted medical supervision of the patient either by a private physician or, in the case of the indigent, in a tax-supported institution.
3. Hospital care which provides for the transfer of the long-term patient as soon as possible to special convalescent wards where active rehabilitation can be begun.
4. Complete laboratory services.
5. Rehabilitation to maintain the patient at, or restore him to, the maximum degree of health and usefulness through the use of physical and occupational therapy and vocational training.
6. Nursing home care.
7. Home care programs.

8. Terminal care which provides special quarters for those who cannot be cared for at home.

9. Finally, research, especially into the causes of the degenerative diseases.

The success of such a community program depends, in the last analysis, on the coordinated efforts of the medical schools, the physicians, and the community health officers.

## Emergency Bedside Cholecystotomy

Albert M. Rosen, M.D., Ashley Pond, M.D.  
and Reynaldo Deveaux, M.D.

TAOS, NEW MEXICO

**T**HIS is the case of an 83-year-old white female who had been under intensive therapy for arteriosclerotic heart disease with severe decompensation for the past eighteen months. During the past five months, she has been in the hospital without interruption because she could not tolerate being out of an oxygen tent longer than thirty minutes.

### CASE REPORT

The patient suddenly developed pain in the right upper quadrant, nausea, and vomiting. Examination revealed her cardiac disease to be clinically unchanged; temperature, 97.8°; pulse, 52; respirations, 18. She had an easily palpable, tender mass in the right upper quadrant. Her white blood count was 17,900, with 87 per cent segmented polymorphonuclear leucocytes, 5 per cent stabs, 3 per cent lymphocytes, 5 per cent monocytes. The urine was negative. A diagnosis of acute cholecystitis was made.

It was felt this patient could not tolerate being moved to surgery for drainage of the gallbladder. It was decided to leave her under the oxygen tent and to do a bedside cholecystotomy under local anesthesia.

Preparation consisted of Thorazine 25 mg. in-

tramuscularly, and Demerol 50 mg. subcutaneously. A small right subcostal incision was made using 1.5 per cent metycaine local infiltration directly over the palpable mass. There was a large amount of clear, lemon-yellow, peritoneal exudate. The gallbladder was found to be edematous and under pressure. Two guy sutures were placed in the fundus of the gallbladder and drainage was established with a stab incision and trocar. The gallbladder contained a yellow-green milky purulent fluid. No stones were removed by the drainage. After emptying, a single plain rubber drain was inserted and sutured to the fundus and to the skin in the usual manner.

Throughout the procedure, the patient remained comfortable with no important changes in pulse, respiration, or blood pressure. She was able to resume oral feeding within a few hours of surgery and convalescence has been uneventful.

### Comment

This case is reported because acute cholecystitis is common in the elderly sick patient who is confined to bed, and an emergency cholecystotomy done at the bedside is feasible when the usual surgical management cannot be tolerated.

### AMA TO SURVEY COUNTY MEDICAL SOCIETIES

Questionnaires to determine the scope of activity in various areas—including public education, community service, society projects, meetings, personnel, and finances—will be distributed early this year by the American Medical Association to all county medical societies. This fifth biennial survey of county medical society activities is being undertaken by the Council on Medical Service and the Department of Public Relations with the assistance of other AMA departments.

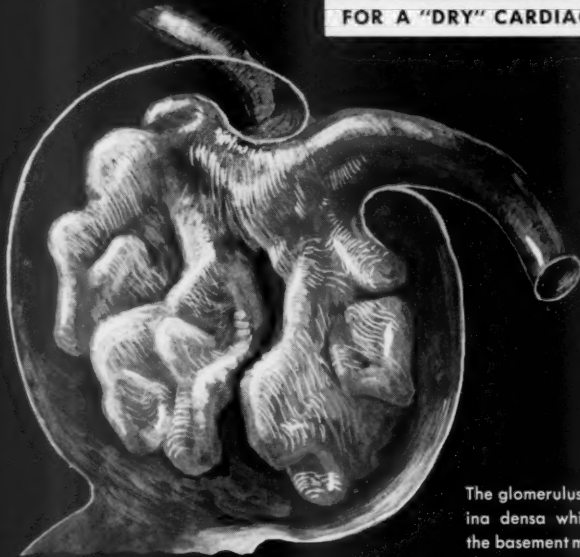
### SECOND INTER-AMERICAN MEDICAL CONVENTION

The Second Inter-American Medical Convention has been scheduled April 3, 4, 5 at the Hotel El Panamá, Panama City, Republic of Panama, and is sponsored by the Medical Society of the Isthmian Canal Zone.

A program of wide scope is planned, with speakers from North and South America. Papers will be translated into both English and Spanish.

For further information write Dr. William T. Bailey, Chairman, Convention Executive Committee, Box O, Ancon, C. Z.

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Illustration by Hans Elias

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Research in the Service of Medicine.

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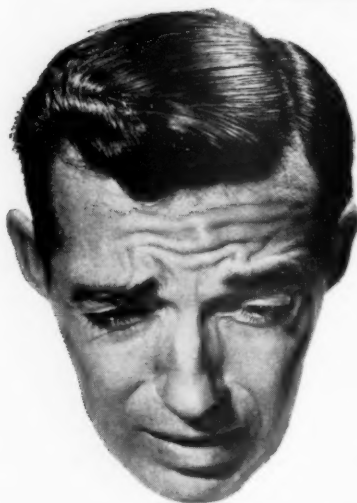
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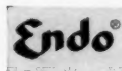


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## The Washington Scene



*A monthly news summary from the nation's capital by the Washington Office of the A.M.A.*

The broad issue of federal construction grants for medical schools pending before the 85th Congress raises again a major question: To what extent is there a physician shortage in the United States?

The administration, through Secretary Folsom, maintains that the need for more doctors and research scientists is increasing rapidly as the population rises, as medical science grows more complex and as research programs are greatly expanded. And, he adds, the need undoubtedly will continue to increase in the years ahead.

Many of these schools already are in a critical financial plight, Mr. Folsom argues, and they need increased private and public funds "just to meet regular operating expenses." Under these circumstances, without further aid, "many schools face almost impossible obstacles in raising funds for construction of new classrooms, laboratories and other facilities." The Secretary then sounds this warning:

"Unless effective action is taken now toward providing these facilities, the shortage of medical scientists will grow more acute in the years ahead, and the health problem of the American people will be retarded."

To solve this problem, the administration wants to broaden the program enacted last year for \$30 million a year for three years to help build and equip laboratories doing research in various diseases. It asked the last Congress for \$50 million a year for five years for both research labs and teaching facilities. The legislators only granted the \$30-million-a-year part. That, says the administration, is not enough.

And to bolster that contention, Mr. Folsom cites the record on the lab facilities act: within three months after authorization, requests totaling well over \$100 million were received by the Public Health Service.

But when the committees of Congress—in all likelihood starting with the House Interstate and Foreign Commerce group—launch their hearings, members will want to know just how short the country is of doctors and whether reports of shortages take into account the increased productivity of each physician in the light of new techniques and other medical advances.

\* \* \*

On the opening day of the 85th Congress, health legislation emerged as a popular subject.

ROCKY MOUNTAIN MEDICAL JOURNAL

Of the approximately 2,000 bills, resolutions and private measures introduced that day, seventy were marked for study by the Washington Office of the American Medical Association. Experience has shown that about three per cent of all measures are of medical importance.

Many of the bills were duplicates of those in the last Congress, while others were revised versions of old favorites. In the latter category were the Jenkins-Keogh bills (again bearing the numbers H.R. 9 and H.R. 10) which would provide tax deferment on money paid in annuity plans, and the Bricker Amendment for keeping international treaties from affecting internal laws of the U. S.

The tax deferment proposal was changed in several respects, the most important being a provision for withdrawal of money from plans in advance of age 65, upon payment of a tax penalty. The key section in the proposed constitutional amendment sponsored by the Ohio Senator states that "A provision of a treaty or other international agreement not made in pursuance of this Constitution shall have no force or effect."

One of the few surprises in the opening day rush to the bill hoppers was a bill Rep. Poage (D., Tex.) to authorize the Secretary of HEW to make long-term, three per cent interest loans to non-profit hospitals for construction and expansion of facilities, including nurses homes. Certain sectarian groups have been pressing for just such a plan in lieu of taking federal grant money under the Hill-Burton program.

\* \* \*

Moving to fill two major spots in the Department of HEW, President Eisenhower has named as Assistant Secretary 36-year-old Elliott L. Richardson, a Boston lawyer and son of the late Dr. Edward P. Richardson of Massachusetts General Hospital and Harvard Medical School. Mr. Richardson served at one time as law clerk to Judge Learned Hand and Justice Felix Frankfurter, as assistant to Senator Saltonstall and as consultant to former Gov. Christian Herter, now Under-Secretary of State.

To succeed Dr. Lowell T. Coggeshall as special assistant for health and medical affairs, the President appointed Dr. Aims C. McGuinness, a Philadelphia pediatrician who was last in Washington as a clinical consultant to the United Mine Workers Welfare and Retirement Fund. He was responsible for the medical staffing of the Fund's ten memorial hospitals in three mining states. Dr. McGuinness was dean of the University of Pennsylvania Graduate School of Medicine and one-time director of Children's Hospital of Philadelphia.

Dr. Coggeshall, who returns to the University of Chicago, was praised by Mr. Folsom for his "splendid work on behalf of the health of the American people."

for FEBRUARY, 1957

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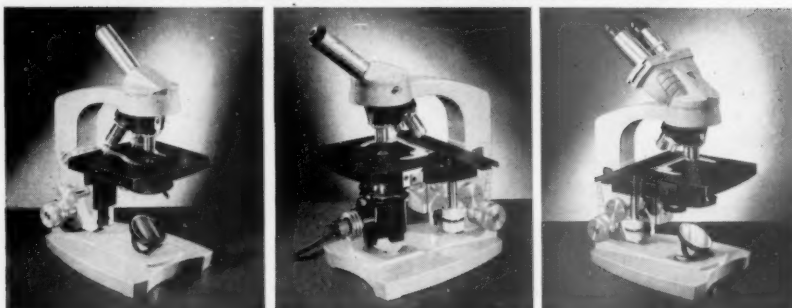
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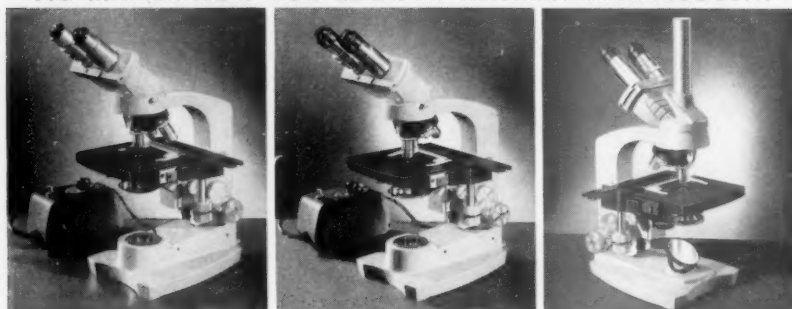
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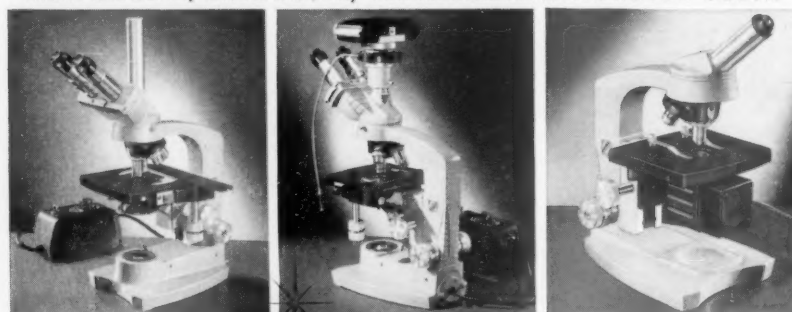
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# Program...

# ORGANIZATION

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## Colorado State Medical Society

FEBRUARY 19, 20, 21, 22, 1957, SHIRLEY-SAVOY HOTEL, DENVER

REGISTRATION FEE: \$5.00

### Official Call

To the Officers, Delegates, Committeemen and Members of the Colorado State Medical Society, Greetings:

The Twenty-Second Midwinter Clinical Session of the Colorado State Medical Society will be held at the Shirley-Savoy Hotel, Denver, Colorado, Tuesday to Friday, inclusive, February 19-22, 1957.

The House of Delegates will convene at 4:00 p.m., The Board of Trustees at 12:00 noon, and the Board of Councilors at 3:00 p.m., Tuesday, February 19, and each subsequently as by them ordered.

The General Scientific Assembly will convene at 9:30 a.m., Wednesday, February 20, and subsequently according to the Program of the Scientific Program Committee.

GEORGE R. BUCK, M.D.  
President.

Attest:

HARVEY T. SETHMAN,  
Executive Secretary

Denver, Colorado  
January 19, 1957

### REGISTRATION

Advance registration Lincoln Room Lobby Monday, February 18—4:00 to 6:00. Tuesday through Friday, 7:30 a.m. to 5:30 p.m.

### TUESDAY, FEBRUARY 19

#### INDOCTRINATION COURSE

All day

Please use 17th Ave. entrance of the hotel.

Lincoln Room

8:45—Welcome and Explanation of Course, George R. Buck, M.D., President, Colorado State Medical Society.

8:50—"The Doubting Doctor," George A. Unfug, M.D., Pueblo.

9:30—Summary of Current State Medical Society Policies, George R. Buck, M.D.

10:00—Intermission.

10:15—"Public Relations and Your Associates," Harvey T. Sethman, Executive Secretary, Colorado State Medical Society.

10:40—"Cause and Prevention of Malpractice Suits," C. Sidney Bluemel, M.D., Englewood.

11:10—Functions of the Grievance Committee (formerly Board of Supervisors), Duane F. Hartshorn, M.D., Chairman, Fort Collins.

11:40—Lunch.

### AFTERNOON

1:00—"Medical Ethics," E. H. Munro, M.D., Delegate to AMA, Grand Junction.

1:40—"Health Insurance," Fredrick H. Good, M.D., President, Colorado Blue Shield, Denver, and J. J. Vance, Executive Director.

2:05—Intermission to visit the exhibits.

2:30—"Buying—Living—Dying"  
Half hour discussion by each of the following guests: Mr. Fred H. Johnson, Cripple Creek, State Board of Pharmacy; Mr. Alan Richardson, Instructor, Division of Finance and Banking, University of Denver; Mr. Charles Works, Associate Professor, Law School, University of Denver.

Adjourn.

4:00—First Meeting House of Delegates, Lincoln Room.

### EVENING

7:00—Stag Dinner followed by Smoker.

### WEDNESDAY, FEBRUARY 20

#### MORNING

8:00-9:00—Movies, Lincoln Room.

9:30-11:30 — **Pediatric Clinic**, Children's Hospital, John R. Connell, M.D., Presiding. Cases presented by the staff of Children's Hospital. Discussion by: C. Henry Kempe, M.D.; C. H. Hardin Branch, M.D.; Harold Palmer, M.D.; John A. Gubler, M.D.

Please use 17th Ave. entrance of the hotel.

**AFTERNOON**  
Lincoln Room

James Z. Davis, President, Utah State Medical Association, Salt Lake City, Presiding

- 1:30—"The Family as a Reservoir of Childhood Infections," C. Henry Kempe, M.D.
- 2:00—Discussion of preceding paper.
- 2:10—"The Worried Parent," C. H. Hardin Branch, M.D.
- 2:40—Discussion of preceding paper.
- 2:50—Intermission. Visit the exhibits.
- 3:20—"Problems of Anemia in Infants and Children," Harold Palmer, M.D.
- 3:50—Discussion of preceding paper.
- 4:00—Report of A.M.A. Delegates.
- 4:30—Adjourn.

**EVENING**

- 6:30—Social Hour.
- 7:00—Banquet, Cosmopolitan Hotel.

**THURSDAY, FEBRUARY 21**

**MORNING**

- 8:00 to 9:00—Movies, Lincoln Room.
- 9:30 to 11:30—**Geriatrics Clinic**, Veterans Administration Hospital, Thad P. Sears, M.D., Presiding. Cases presented by the staff of the Veterans Administration Hospital. Discussion by: Charles F. Wilkinson, Jr., M.D.; John A. Gubler, M.D.; C. H. Hardin Branch, M.D.; Edward N. Cook, M.D.

Please use 17th Ave. entrance of the hotel.

**AFTERNOON**  
Lincoln Room

Stuart W. Addler, M.D., President, New Mexico Medical Society, Albuquerque, Presiding

- 1:30—"Metabolic Problems in Geriatrics," Charles F. Wilkinson, Jr., M.D.
- 2:00—Discussion of preceding paper.
- 2:10—"Emergency Surgery in Poor Risk Patients," John A. Gubler, M.D.
- 2:40—Discussion of preceding paper.
- 2:50—Intermission. Visit your exhibits.
- 3:20—"Practice of Urology in Relation to the Aged Patient," Edward N. Cook, M.D.
- 3:50—Discussion of preceding paper.
- 4:00—"Orientation to the Geriatric Problem," C. H. Hardin Branch, M.D.
- 4:30—Discussion of preceding paper.
- 4:40—Adjourn.

4:45—Second Meeting, House of Delegates, Lincoln Room.

**EVENING**

Open for individual social events.

**FRIDAY, FEBRUARY 22**

**MORNING**

- 8:00-9:00—Movies, Lincoln Room.
- 9:30-11:30—**Ob-Gyn Clinic**, St. Joseph's Hospital. Cases presented by the staff of St. Joseph's Hospital. N. Paul Isbell, M.D., Presiding. Discussion by: Harold Palmer, M.D.; Carl P. Huber, M.D.; C. Henry Kempe, M.D.; Edward N. Cook, M.D.

Please use 17th Ave. entrance of the hotel.

**AFTERNOON**  
Lincoln Room

J. S. Hellewell, M.D., President, Wyoming State Medical Society, Evanston, Presiding

- 1:30—"Problems of Office Gynecology," Carl P. Huber, M.D.
- 2:00—Discussion of preceding paper.
- 2:10—"Office Problems in Urology," Edward N. Cook, M.D.
- 2:40—Discussion of preceding paper.
- 2:50—Intermission. Visit the exhibits.
- 3:20—"Oft Neglected Principles of the Acute Abdomen," John A. Gubler, M.D.
- 3:50—Discussion of preceding paper.
- 4:00—"Headache—A Diagnostic Problem," Charles F. Wilkinson, Jr., M.D.
- 4:30—Discussion of preceding paper.
- 4:40—Adjourn.

**P R O G R A M**

**WOMAN'S AUXILIARY TO THE COLORADO STATE MEDICAL SOCIETY**

February 19-22, 1957

**TUESDAY, FEBRUARY 19**

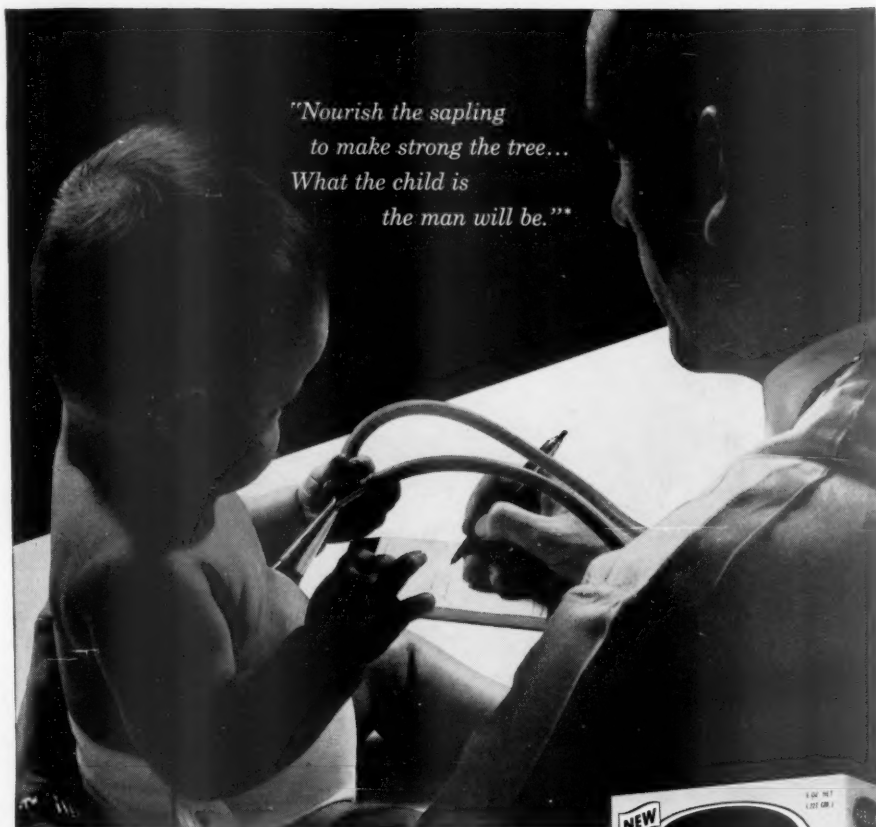
- 12:00 Noon-3:00 P.M.—Registration, Shirley-Savoy Hotel.
- 6:30 P.M.—Buffet Supper for Board Members, home of Mrs. Edward J. Meister, 5820 East 1st Ave.

**WEDNESDAY, FEBRUARY 20**

- 9:00 A.M.-12:00 Noon—Registration, Shirley-Savoy Hotel.
- 2:00 P.M.—Tea and Tour, Denver Medical Auxiliary acting as hostesses, United States National Bank, 1740 Broadway.
- 6:00 P.M.—Cocktails, Cosmopolitan Hotel, Silver Glade Room.
- 7:00 P.M.—Dinner, Cosmopolitan Hotel, Silver Glade Room.

(Continued on Page 168)





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What the child is  
the man will be."\**

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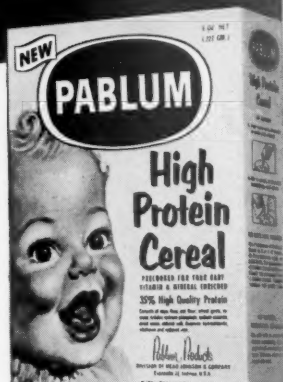
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(Continued from Page 164)

9:00 P.M.-12:00 Midnight—Dancing. Music by Tom Gardner's Orchestra.

#### THURSDAY, FEBRUARY 21

9:00 A.M.—12:00 Noon—Registration, Shirley-Savoy Hotel.

10:00 A.M.-12:00 Noon—Board Meeting, Brown Palace Hotel.

12:30 P.M.—Luncheon, Brown Palace Hotel, Stratton Room. Address by Mrs. Robert Flanders, President, Woman's Auxiliary to the American Medical Association.

### Guest Speakers



**C. H. Hardin Branch, M.D.**, Salt Lake City. Professor and Head of the Department of Psychiatry, College of Medicine, University of Utah.

Hosts—Franklin G. Ebaugh, M.D.  
Herbert S. Gaskill, M.D.



**Carl P. Huber, M.D.**, Indianapolis. Professor and Chairman of Department of Obstetrics and Gynecology, Indiana University School of Medicine.

Hosts—Warren W. Tucker, M.D.  
Fred R. Harper, M.D.



**C. Henry Kempe, M.D.**, Denver. Professor and Head of the Department of Pediatrics, University of Colorado School of Medicine.

Hosts—Craig Johnson, M.D.  
Ralph O. Sherberg, M.D.

**Edward N. Cook, M.D.**, Rochester, Minn. Professor of Urology, Mayo Foundation Graduate School, University of Minnesota.



Hosts—Henry A. Buchtel, M.D.  
Daniel R. Higbee, M.D.



**Harold D. Palmer, M.D.**, Springfield, Ill. Pathologist, St. John's Hospital, Springfield; formerly Pathologist and Medical Director, Children's Hospital, Denver.

Hosts—William C. Black, M.D.  
Alexis E. Lubchenco, M.D.



**John A. Gubler, M.D.**, Salt Lake City. Chief Surgeon, V.A. Hospital, Salt Lake City.

Hosts—Albert J. Kukral, M.D.  
Ben Eiseman, M.D.

**Charles F. Wilkinson, Jr., M.D.**, New York. Professor and Chairman, Department of Medicine, New York University Post-Graduate Medical School, New York.



Hosts—Charley J. Smyth, M.D.  
Leroy J. Sides, M.D.



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## Blue Cross- Blue Shield



### NEW EXECUTIVE DIRECTOR APPOINTED

The Board of Trustees of Colorado Hospital Service has announced the appointment of Thomas M. Tierney, prominent young Denver attorney, as executive director of Colorado Blue Cross, succeeding Joseph R. Grant, who resigned the post in November, 1956. Grant, presently on leave of absence, will rejoin the staff in an executive capacity, Tierney announced.



**T. M. TIERNEY**

The new executive director served on the unpaid Blue Cross Board of Trustees, governing body of the hospitalization plan, for the past five years; two years as president. John J. Vance continues as executive director of Colorado Blue Shield, the companion plan to Blue Cross.

The Blue Cross, non-profit hospitalization plan, currently serves more than 540,000 subscribers in Colorado.



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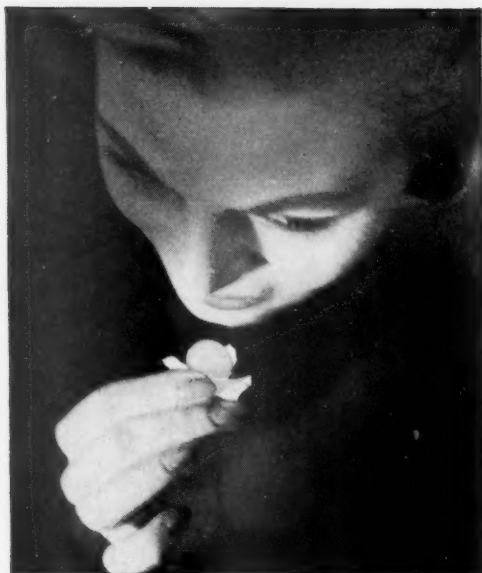
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**CAMPBELL F. RICE, Superintendent**

**Francis A. O'Donnell, M.D., Paul A. Draper, M.D., Charles W. McClellan, M.D.**

**Thomas J. Hurley, M.D., Robert W. Davis, M.D.**



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## Wyoming



**INTERIM MEETING  
 OF THE  
 HOUSE OF DELEGATES  
 WYOMING STATE MEDICAL SOCIETY  
 Casper, Wyoming  
 November 18, 1956**

**PROCEEDINGS**

**Sunday Morning, November 18, 1956**

The House of Delegates was called to order in the Empire Room of the Henning Hotel at Casper, Wyoming, at 10:00 o'clock a.m. Dr. Joseph S. Hellewell, President, presided.

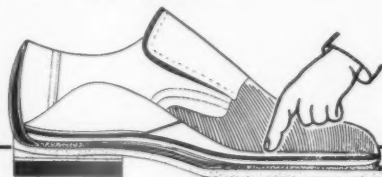
A roll call was taken by Dr. Gitlitz, Secretary, and the President announced that a quorum was present, according to the Society's Constitution.

It was moved, seconded, and carried that the minutes of the June meeting as published in the Rocky Mountain Medical Journal be accepted.

Mr. Byron Hirst of Cheyenne, Wyoming, was introduced to the House of Delegates by the President as a State Senator and an attorney-at-law who had been employed to help draft legislation which the Public Policy and Legislative

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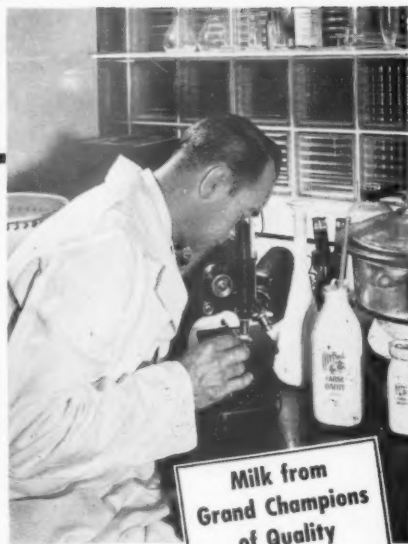
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February 22, 1:00 PM. through  
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physicians are invited.

J. Arnold Borgen, M.D., Rochester, Minn.  
R. Russell Best, M.D., Omaha, Nebr.  
Warren H. Cole, M.D., Chicago, Ill.  
Robert S. Grinnell, M.D., New York City  
Elson B. Helwig, M.D., Washington, D.C.  
Philip J. Hodes, M.D., Philadelphia, Penn.  
Edgar J. Poth, M.D., Galveston, Tex.

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For program write: Office of Postgraduate Education, University of Oklahoma, School of Medicine, 801 N. E. 13th Street, Oklahoma City, Oklahoma.

Committee wanted submitted at the next legislative session.

Dr. Norman Robert Black, Chairman of the Public Policy and Legislative Committee, stated that the committee had one formal meeting in Casper and a great deal of committee correspondence concerning legislative matters.

Dr. Black then reported to the delegates that at the meeting previously held by the committee it was decided to present amendments to the present Medical Practice Act rather than to present a new act. The floor was then turned over to Mr. Hirst, who described in detail the present Medical Practice Act and the amendments that were suggested for the present act.

The House of Delegates then voted to approve the amendments, after considerable discussion, and commended the Public Policy and Legislative Committee for all of its work.

The next item of business was a discussion of the Basic Science Act. After lengthy discussion it was voted by the House of Delegates that the Basic Science Law not be presented as a bill at this time.

#### Sunday Afternoon, November 18, 1956

After a recess for luncheon the meeting reconvened at 2:00 p.m., and Dr. Wilmoth reported on an approved public relations program in cooperation with the Wyoming Press Association.

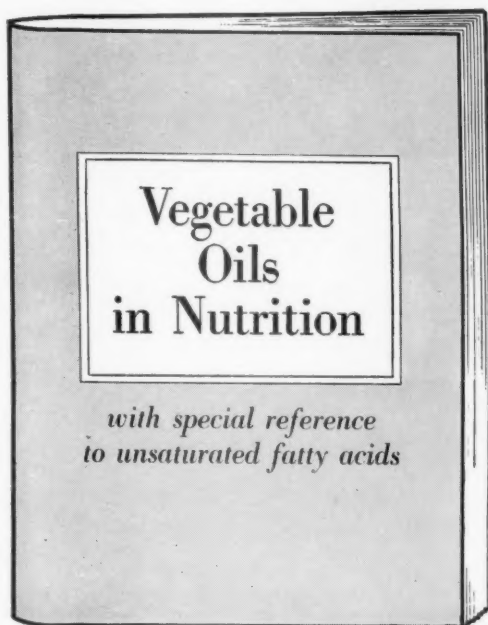
Dr. Wilmoth's report was accepted by the House of Delegates.

The President announced that Dr. Barrett of Cheyenne had gone to Chicago to attend a meeting of the Defense Department concerned with the care of military dependents. It was also pointed out that Dr. Barrett and Dr. Hellewell

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for FEBRUARY, 1957

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had negotiated with the Defense Department in Washington, D. C., and had signed contracts with the Defense Department regarding fee schedules for professional care of dependents of service personnel. It was pointed out that the Fee Schedule Committee had met the day prior to the House of Delegates meeting and had voted approval of the fee schedule that had been negotiated.

The House of Delegates then voted unanimously approving the signing of the contract with the Defense Department and the fee schedule contained therein.

Dr. Sampson then discussed with the House of Delegates the desirability of changing the present Wyoming State Medical Society insurance blank to add an authorization for assignment for payment to doctors instead of payments to patients.

Dr. Sampson then made the motion that the House of Delegates authorize the addition of the authorization with the aid of legal counsel who should approve the form of the authorization. This was unanimously carried.

Dr. Yoder discussed the State Tuberculosis Sanatorium at Basin, Wyoming, and stated that there would be a survey team make a study of the Sanatorium and its facilities and that a report would be made at a later date by this impartial committee.

Dr. Dominick then moved that the survey be made, including in the survey a study or consultation with the tuberculosis patients residing in Wyoming who are hospitalized out of state. The motion was seconded and unanimously carried.

Motion was then made that the State Society go on record to recommend to the State Legislature the reactivation of the Mobile Chest X-ray Unit and recommend its operation be subject to supervision of the State Board of Health and the Tuberculosis Association. This motion was unanimously carried.

It was moved, seconded, and carried unanimously that the Wyoming State Medical Society endorse the suggestion of the Clerks of Court that they present to the Wyoming Compensation Department for their approval a bill to allow the local courts to pay routine hospital and doctor charges thus expediting payment of compensation bills.

President Hellewell stated that he would assign to the Medical Economics Committee a study concerning the matter of fees for the members of the medical profession when called upon to act as expert witnesses at trial cases in court.

There being no further business, the Interim Meeting of the House of Delegates was adjourned.

## Obituaries

### DR. RAFFL DIES IN AUTO ACCIDENT

The tragedy in highway accidents was exemplified to the medical profession in the death of Dr. Claude Raffl, 45, of Basin. The accident occurred December 20, 1956, as three men were returning from a duck hunting expedition in a station wagon which went out of control on a 500-foot stretch of icy highway, striking a steel pipe carrying a canal over a drain ditch. Dr. Raffl was born April 1, 1911, in Redbud, Illinois. He graduated from the University of Syracuse





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College of Medicine (New York) in 1936. He served his internship at Syracuse and then a two-year fellowship in surgery at the Cleveland Clinic Hospital, completing this in 1939. Dr. Raffl was licensed in Wyoming in June of 1941. He began his practice in Hanna for six months, then moving to Greybull in the same year, moving to Basin in January of 1942 where he resided until his death.

Dr. Raffl was a highly respected member of the community of Basin and tributes in the local newspaper indicate the high esteem in which he was held. A memorial fund has been established to furnish a room at the new South Big Horn County Hospital between Basin and Greybull.

Dr. Raffl is survived by his widow, a daughter and a son.

### PIONEER STAR VALLEY PHYSICIAN DIES

Dr. George W. West of Afton, age 84, passed away on December 5 at the Star Valley LDS Hospital. Dr. West was born November 16, 1872, at Meta, Missouri, graduated at Barnes Medical School, St. Louis, in 1903 (later Washington University). In 1904 he moved from Idaho into Star Valley, Wyoming, as he related "to make my stake and move on." However, he never moved on and in the fifty-two intervening years his love for the valley was emphasized by the fact that he did not even remain away overnight if he could help it.

During many of these years he carried the full responsibility for medical care in that area. He was a familiar sight in winter with his team and cutter going out on calls with his buffalo robe, fur cap, pinto coat, icicle covered mustache and accompanying faithful dog. On one winter obstetric call forty miles distant from Afton he used buggy, sleigh, boat across the swollen creek and fresh horses and another sleigh, still arriving in time to attend his parturient patient.

In 1946 he was honored at a special birthday party for his services to the community, including the delivery of over 4,000 babies.

He was a community leader in other than medical affairs as well, being a member of his Farm Bureau, local school board and director of local banks.

Dr. West's interest in public affairs was also indicated by his service as Lincoln County Health Officer from January, 1943, until his death.

His wife preceded him in death in 1947. He is survived by four sons and two daughters.

## Utah



### News Briefs

Ernest L. Wilkinson, M.D., of Salt Lake City, has been installed as President of the Utah Society of Internal Medicine. Other new officers are John H. Rupper, M.D., Provo, Presi-

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dent-elect; Floyd W. Seager, M.D., Ogden, Secretary-Treasurer, and the following as members of the Executive Committee: James R. Miller, M.D., Salt Lake City; J. Clare Hayward, M.D., Logan; Gail H. Keyes, M.D., Ogden, and William P. Daines, M.D., Ogden.

Contributions amounting to nearly \$300,000 to the nation's schools were announced by the American Medical Association and four of its constituent state societies—California, Arizona, Utah and New Jersey.

The current gifts bring to nearly 6 million dollars the amount which practicing physicians have contributed to the eighty-two schools of medicine to use as they see fit in furthering medical education.

The AMA portion of the contribution was \$125,000, California \$132,981, New Jersey \$25,000, Utah \$11,870 and Arizona \$3,695.

Dr. Eugene L. Wiemers, assistant superintendent, Utah State Hospital, Provo, has been elected President of the Utah Psychiatric Society, it was announced. He succeeds Jack L. Tedrow, Salt Lake City.

Other new officers are Beverly T. Mead, Veterans Administration Hospital, Fort Douglas, President-elect, and William W. Barrett, resident in psychiatry at Fort Douglas, Secretary-Treasurer.

A series of public health forums on topics which will touch virtually every family will be given in Weber College Moench auditorium, lower campus. The first meetings were held January 10 and January 24.

Topics to be explored this year in the series of six twice-monthly meetings will fall under the general designations of mental health, dental health, heart disease, arthritis, the exceptional child and cancer. Panels of local doctors and specialists will attempt to answer many of the questions in the minds of the public about these six medical and social areas.

The following dates have been set aside for other forums: February 7 and 28, March 14 and 28.

Thomas R. Broadbent, M.D., was recently elected Assistant Secretary and a member of the Executive Committee of the American Society of Plastic and Reconstructive Surgery at their 25th annual meeting at Miami Beach, Florida. Dr. Broadbent is on the staff of the LDS Hospital, the Primary Children's Hospital and is associate professor of surgery, University of Utah College of Medicine.

### AMA RURAL HEALTH "DERBY" MARCH 7-9

The Blue Grass country of Louisville, Ky., will be the scene of the American Medical Association's rural health "derby" March 7-9. Sponsored by the Council on Rural Health, this 12th National Conference on Rural Health will be held at the Brown Hotel. It will feature discussions on various problems of rural health and medical care. Built around the theme of "Together We Build," the Conference will open with greetings from the Hon. A. B. Chandler, governor of Kentucky, the Hon. J. Andrew Broaddus, mayor of Louisville, and Dr. George F. Lull, AMA secretary-general manager. Also

scheduled to speak Thursday morning, March 7, are Dr. F. S. Crockett, Council chairman; Dr. Austin Smith, AMA Journal editor, and Dr. Julius Michaelson, chairman, Alabama State Medical Association Committee on Medical Service and Public Relations.

Problems of medical education will be outlined during the afternoon session by Dr. Edward Turner, secretary, AMA Council on Medical Education; Dr. J. Murray Kinsman, dean of medicine at the University of Louisville; Dr. Charles Bush, resident physician planning to enter rural practice in Kirkland, Ind., and Dr. W. Wyman Washburn, chairman, North Carolina State Medical Society Committee on Rural Health and Education.

The Friday program will cover the economics of agriculture and medical and hospital care

costs and health and medical care problems of farm laborers and migrant workers. Speakers include Carroll Bottom, Purdue University economist; Mary Schabinger, Detwiler Memorial Hospital, Wauseon, Ohio, and Dr. Carl S. Mundy, Council vice chairman. Principal speaker at the Friday evening banquet will be Dr. Leroy Burney, surgeon general, U. S. Public Health Service, Washington, D. C.


Other highlights of the Conference include discussions on rural-urban problems and rural aspects of the problems of the aging. At the final session on Saturday morning, Joseph Ackerman, managing director, Farm Foundation, will give a brief resume on the Conference, and Mrs. Charles W. Sewell, Council Advisory Committee member, will give an inspirational talk entitled "And Away We Go."



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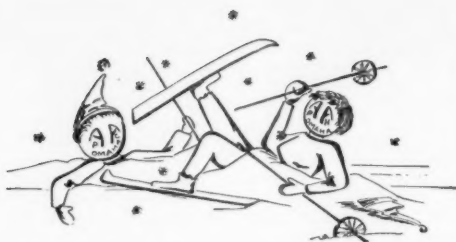
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# THE COLORADO STATE MEDICAL SOCIETY

## MIDWINTER CLINICAL SESSION; FEBRUARY 19-22; SHIRLEY-SAVOY HOTEL; DENVER

### OFFICERS—1956-1957

Terms of Officers and Committeemen expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** George R. Buck, Denver.

**President-Elect:** Gatewood C. Milligan, Englewood.

**Vice President:** C. Walter Metz, Denver.

**Constitutional Secretary** (three years): James M. Perkins, Denver, 1957.

**Treasurer** (three years): William C. Service, Colorado Springs, 1959.

**Additional Trustees** (three years): Lawrence D. Buchanan, Wray, 1957; Thomas K. Mahan, Grand Junction, 1958; Terry J. Gromer, Denver, 1958; Bernard T. Daniels, Denver, 1959.

(The above nine officers compose the Board of Trustees of which Dr. Buck is Chairman and Dr. Metz is Vice Chairman for the 1956-1957 year.)

**Board of Councilors** (three years): District No. 1: Osgoode S. Philpott, Denver, 1957; District No. 2: Roger G. Howlett, Golden, 1959; District No. 3: Harry C. Bryan, Colorado Springs, 1958; District No. 4: Paul R. Hildebrand, Brush, 1957; District No. 5: John D. Gillaspie, Boulder, 1957; Vice Chairman: District No. 6: Harvey M. Tupper, Grand Junction, 1958; District No. 7: Charles L. Mason, Durango, 1958; District No. 8:

Herman W. Roth, Chairman, Monte Vista, 1959; District No. 9: Scott A. Gale, Pueblo, 1959.

**Grievance Committee** (formerly the Board of Supervisors) (two years): Duane F. Harborth, Chairman, Ft. Collins, 1957; Kenneth H. Beebe, Vice Chairman, Sterling, 1957; Freeman H. Longwell, Secretary, Denver, 1958; Lawrence W. Holden, Boulder, 1957; Robert C. Lewis, Jr., Glenwood Springs, 1957; James S. Orr, Fruita, 1957; Gordon H. Vandiver, La Junta, 1958; Robert H. Smith, Colorado Springs, 1958; George G. Balderson, Montrose, 1958; Ligon Price, Mt. Harris, 1958; Walter M. Boyd, Greeley, 1958; William N. Baker, Pueblo, 1957.

**Delegates to American Medical Association** (two calendar years): E. H. Munro, Grand Junction, 1957; (Alternate, Harlan E. McClure, Lamar, 1957); Kenneth C. Sawyer, Denver, 1958; (Alternate, Irvin E. Hendryson, Denver, 1958).

**Speaker, House of Delegates:** Carl W. Swartz, Pueblo; **Vice Speaker:** Frank B. McGlone, Denver.

**Foundation Advocate:** Walter W. King, Denver.

**Executive Office Staff:** Mr. Harvey T. Sethman, Executive Secretary; Mrs. Geraldine A. Blackburn, Executive Assistant; Mr. John W. Pompelli, Executive Assistant; 835 Republic Building, Denver 2, Colorado; Telephone AComa 2-0547.

**General Counsel:** Mr. J. Peter Nordlund, Attorney-at-Law, Denver.

# MONTANA MEDICAL ASSOCIATION

## INTERIM SESSION; MARCH 29-30; MISSOULA

### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated, the term is for one year only and expires at the 1957 Annual Session.

**President:** Edward S. Murphy, Missoula.

**President-Elect:** John A. Layne, Great Falls.

**Vice President:** Herbert T. Caraway, Billings.

**Secretary-Treasurer:** Theodore R. Vye, Billings.

**Assistant Secretary-Treasurer:** Park W. Willis, Jr., Hamilton.

**Executive Committee:** Edward S. Murphy, Missoula, Chairman; John A. Layne, Great Falls; Herbert T. Caraway, Billings; Theodore R. Vye, Billings; Park W. Willis, Jr., Hamilton; George W. Setzer, Malta; John J. Malec, Anaconda.

**Executive Secretary:** Mr. L. R. Hegland, P. O. Box 1692, Office Telephone 9-2585, Billings.

**Delegate to American Medical Association:** Raymond F. Peterson, Butte; alternate, Paul J. Gans, Lewiston.

# NEW MEXICO MEDICAL SOCIETY

## 75th ANNIVERSARY MEETING; MAY 15, 16, 17; SANTA FE

### OFFICERS—1956-1957

Terms of Officers expire at the Annual Session in the year indicated. Where no year or term is indicated, the term is for one year only and expires at the 1957 Annual Session.

**President:** Stuart W. Adler, Albuquerque.

**President-Elect:** Samuel R. Ziegler, Espanola.

**Vice President:** James C. Sedgwick, Las Cruces.

**Secretary-Treasurer:** Lewis M. Overton, Albuquerque.

**Executive Secretary:** Mr. Ralph R. Marshall, 223-24 First National Bank Building, Albuquerque; telephone 2-2102.

**Immediate Past President:** Earl L. Malone, Roswell.

**Councillors** (three years): W. E. Badger, Hobbs, 1957; W. D. Dabbs, Clovis, 1957; W. O. Connor, Jr., Albuquerque, 1958; L. L. Daviet, Las Cruces, 1958; Aaron Margulis, Santa Fe, 1959; Junius A. Evans, Las Vegas, 1959.

**Delegate to American Medical Association** (two years): H. L. January, Albuquerque, 1958; Alternate: Earl L. Malone, Roswell, 1958.

**Board of Supervisors:** A. J. Jensen, Hobbs, Chairman, 1957; W. J. Hossley, Deming, Secretary, 1957; Milton Floersheim, Jr., Raton, 1957; George W. Prothro, Clovis, 1957; A. D. Maddos, Las Cruces, 1958; G. A. Slusser, Artesia, 1958; Louis Levin, Belen, 1958; Jack Dillahunt, Albuquerque, 1958.

**New Mexico Physicians Service:** H. M. Mortimer, Las Vegas, 1957; H. L. January, Albuquerque, 1957; Fred Hanold, Albuquerque, 1957; L. L. Daviet, Las Cruces, 1957; O. C. Taylor, Jr., Artesia, 1957; C. S. Stone, Hobbs, 1957; R. P. Beaudette, Raton, 1958; R. V. Seligman, Albuquerque, 1958; Wendell Peacock, Farmington, 1958; Omar Legant, Albuquerque, 1958; Allen Haynes, Clovis, 1959; W. L. Minton, Lovington, 1959; J. P. Turner, Carrizozo, 1959; U. S. Marshall, Roswell, 1959; J. W. Hilsman, Carlsbad, 1959; Executive Director: Mr. L. J. LeGrave, 212 Insurance Building, Albuquerque, Phone 3-3188.

# THE UTAH STATE MEDICAL ASSOCIATION

## ANNUAL SESSION; SEPTEMBER 5-7; SALT LAKE CITY

### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** James Z. Davis, M.D., Salt Lake.

**President-Elect:** Reed W. Farnsworth, M.D., Cedar City.

**Past President:** R. O. Porter, M.D., Logan.

**Honorary President:** C. N. Ray, M.D., Salt Lake.

**Secretary:** J. Poulsen Hunter, M.D., Salt Lake.

**Executive Secretary:** Mr. Harold Bowman, Salt Lake.

**Treasurer:** Alan P. Macfarlane, M.D., Salt Lake.

**Councillor, Box Elder Medical Society:** J. H. Rasmussen, M.D., Brigham City.

**Councillor, Cache Valley Medical Society:** C. C. Randall, M.D., Logan.

**Councillor, Carbon County Medical Society:** L. H. Merrill, M.D., Hiawatha.

**Councillor, Central Utah Medical Society:**

**Councillor, Salt Lake County Medical Society:** James F. Orme, M.D., Salt Lake.

**Councillor, Southern Utah Medical Society:**

**Councillor, Uintah Basin Medical Society:** T. R. Sager, M.D., Vernal.

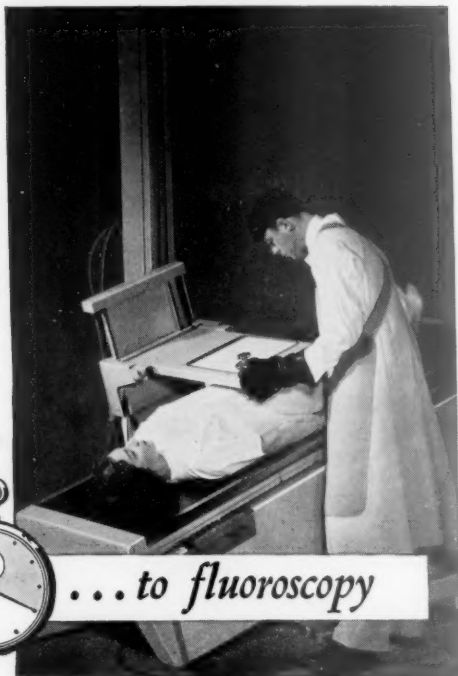
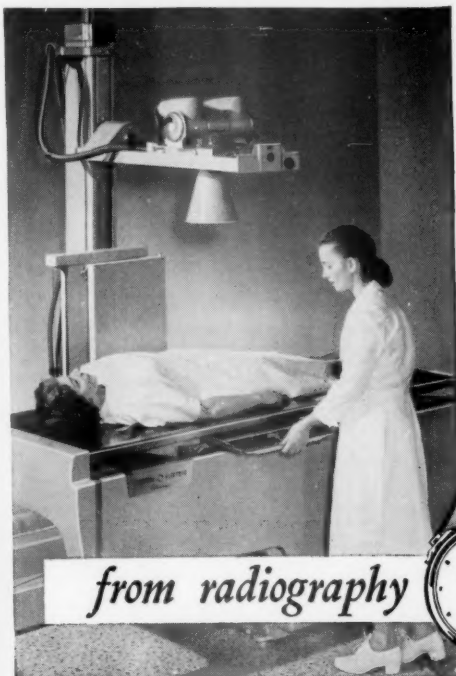
**Councillor, Utah County Medical Society:**

**Councillor, Weber County Medical Society:** I. B. McQuarrie, Ogden.

**Delegate to the A.M.A., 1955-57:** George M. Flister, M.D., Ogden; Alternate: Elliot Snow, M.D., Salt Lake City.

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# THE WYOMING STATE MEDICAL SOCIETY

## ANNUAL SESSION; JUNE 16-19; JACKSON LAKE LODGE, MORAN, IN CONJUNCTION WITH THE ROCKY MOUNTAIN MEDICAL CONFERENCE

### OFFICERS—1956-1957

**President:** J. S. Hellewell, Evanston.  
**President-elect:** H. B. Anderson, Casper.  
**Vice President:** L. Harmon Wilmoth, Lander.  
**Secretary:** Benjamin Giltitz, Thermopolis.  
**Treasurer:** C. D. Anton, Sheridan.

**Delegate to A.M.A.:** A. T. Sudman, Green River.  
**Alternate Delegate, A.M.A.:** B. J. Sullivan, Laramie.  
**Executive Secretary:** Mr. Arthur R. Abbey, Cheyenne.  
**Councillors\*:** Frederick Haigler, 1959, Casper; Nels Vicklund, 1959, Thermopolis; Joseph Whalen, 1959, Evanston; Wm. Hinrichs, 1958, Douglas; Loran E. Morgan, 1958, Torrington; Francis A. Barrett, 1957, Cheyenne; Joseph E. Hoadley, 1957, Gillette; **Ex-Officio:** J. S. Hellewell, President; Chairman: Benjamin Giltitz, Secretary.

# COLORADO HOSPITAL ASSOCIATION

### OFFICERS, 1956-1957

**President:** Robert A. Pontow, Colorado General Hospital, Denver.  
**President-Elect:** Roy Prangey, St. Luke's Hospital, Denver.  
**Vice President:** Mgr. John R. Mulroy, Catholic Hospitals, Denver.  
**Treasurer:** Walter Dubach, Children's Hospital, Denver.  
**Trustees:** Harry Clark (1957), Southwest Memorial Hospital, Cortez; Elton A. Reese (1957), Alamosa Community Hospital, Alamosa; Roy

Anderson (1957), Presbyterian Hospital, Denver; C. Franklin Fielden (1958), Memorial Hospital, Colorado Springs; Lewis Liswood (1958), National Jewish Hospital, Denver; Milton Spedier (1958), Wray Community Hospital, Wray; John Peterson (1959), Larimer County Hospital, Fort Collins; Hubert Hughes (1959), General Rose Hospital, Denver; Jacob Horowitz (1959), Denver General Hospital, Denver.

**Rise Cross Representative on Board of Trustees:** Glenn Saunders, Denver.  
**Delegate to the American Hospital Association:** H. E. Elce, Porter Sanitarium and Hospital, Denver; **Alternate Delegate:** H. H. Hill, Weld County Hospital, Greeley.

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# EDITORIALS

**M**EDICAL educators are seeking, on behalf of our profession's future, an answer to the medical requirements of a rapidly increasing population. The medical profession

## *De-Emphasis of Scholarship?*

is, of course, in competition with other callings for the best minds among the young men and women who will fill the ranks in future generations. It is not difficult to understand how young people of today, many of them with growing families to support, are tempted to grasp the prevailing unprecedented opportunities in business and other professions. Progress, financial competence, and hopeful future are available in less than the time required by our profession. Ours require nine, twelve, or up to seventeen years after high school, before eligibility to practice and to take examinations for specialty certification. Young people are not blind to these facts, to the long and arduous training required for recognition in the specialties, nor to heavy taxation of ultimate material rewards in any calling. The idealistic youth who simply "wants to be a doctor," for great good to humanity and satisfaction to himself, is hard to find.

Candidates for admission to medical schools are no longer a dozen or so for each place in the freshman class. Government-sponsored educations wane rapidly as wars are left behind. Attractive training at government expense and careers in government service are, however, claiming more and more of our young men. Expanding industry claims another large block of youthful talent with its potential executive ability and manpower for research. How is our profession to hold its own in the competitive race to man the stations along its road into the future?

Some spokesmen among the educators have suggested de-emphasis of scholarship.

This, it seems to us, should be left until last! When we plead for broader knowledge and better use of the English language on the one hand, how can we de-value the humanities and preparation for a creditable place in a learned profession on the other? Those of us who read and grade our students' examination papers are startled to note how few of them write well, and how still fewer express themselves clearly or can even spell. And upon reviewing the histories and physical examinations some of the internes and residents write upon our hospitals records we note that often they do not see what they are looking at nor properly interpret what they find. Intellectual curiosity often appears to be eclipsed by mere fulfillment of time requirements and the passing, after a fashion, of examinations and board specifications.

Perish the thought of de-emphasizing scholarship! If our ideals and service to fellow men depend upon anything more than scholarship, what is it? When we cease to be students and teachers ourselves and to inspire perpetual intellectual curiosity, with other ideals, into the neophytes, professional standards will drop. We must be more than numerically great. Let us search for other means of filling our ranks of the future.

## *The Physician's Prayer\**

"Dear Lord, grant this a doctor's humble prayer:  
Help me to neither falter nor evade.  
Cleanse me from prejudice and stubborn pride  
For these breed false beliefs and egotism.  
Let me assume no skills, but justly earned,  
And mark me for integrity, a precious gift.  
Let me cleave to Truth and not adorn  
My mind with fatuous thoughts and jealousies.  
Guard me 'gainst evil—e'en in subtlest form,  
Yet help me tolerate the faults of others.  
Guide my hand too in those despairing hours  
When I have erred in tasks beyond my skill  
And yet, let courage ever be my garment.  
Deliver me from crude and callous acts,

Thus keep me human—withal free from maudlin traits,  
That mine—the Physician's—mind be bright as steel.  
'Bove all, teach me the priceless Joy of healing,  
That when I stand trial at Judgment Day  
I may be tranquil in the sure belief  
That I helped soothe Life's restless tragedy. . ."  
Amen. A. R.

This poet's version of the Oath of Hippocrates, more modern yet timeless in its content, is worth a bit of literary dissection. Being a prayer, addressed to our Lord and Healer, it is subtly appropriate. This list of do's and don'ts can be likened to the hopes and fears of the young physician entering private practice after long years within the hallowed walls of some venerable institution. Abruptly, the protective patina is washed away and the stark reality of earning a living and of facing a cool and sometimes unfriendly world is realized. The pitfalls and dangers are seen and the physician's prayer asks protection against them; jealousies, prejudice, pride, crude and callous acts, all "evil."

Having asked protection from wrong doing, the physician requests that the Lord lead him down the path of righteousness; integrity, truth, tolerance, courage. In summary, keep him human but "free from maudlin traits."

Lastly, teach him the priceless joy of healing. Not the joy that's "almost nice" but a true sense of pleasure and warm satisfaction in helping in the healing of man. The art of healing, the mechanics, must be taught, of course, but the physician's life will certainly be incomplete if he does not acquire the joy of healing. Do not let him falter nor evade the problems and heartaches but lead and guide him through life to Judgment Day.

Read the physician's prayer once more and decide if it would not be worth clipping and slipping beneath the glass of your desk (on your side, not the patient's). In a trying situation its reading could substitute for "counting to ten," and help in the restoration of one's good humor and philosophic outlook. "A.R., is to be thanked for his contribution to Aequanimitas.

\*Found originally in a South African Medical Journal and reprinted in the J.A.M.A. two years ago.

## Correspondence



We editors sometimes wonder how we're doing and whether our stuff gets around. Once in a fortunate while, the answer to the question is forthcoming—when we misspell a colleague's name or step on some one's toes. The following is a letter from Dr. Arthur C. Curtis, Department of Dermatology and Syphilology, University of Michigan, Ann Arbor, Michigan. It refers to our editorial entitled "Let's Do It the Hard Way"—in the issue of January, 1957.

I have been sent a clipping from the Rocky Mountain Medical Journal where the Mohs' technique for the destruction of superficial malignant tumors by means of zinc chloride paste is badly criticized. Whoever wrote this article either has had very little experience with this technique, or has applied it to lesions which never should have been treated by such a technical procedure. For several years, the Mohs' technique has been used at the University Hospital, and is agreed upon at the tumor conferences, which are held each week, as a means of treating without mutilating surgery some of the basal cell carcinomas that have invaded the eye, conjunctivae, sinuses, external auditory canal and so forth. As your editorial says, such people who do this technical procedure must have the patience of Job for it is a very time-consuming procedure which requires not only the time of the man doing the surgery and his assistant, but also the doing of large numbers of frozen sections and the continuation of the procedure until it is completed.

When one realizes that in selected cases which probably don't number more than six or eight a year at the University Hospital, we have been able to save eyes, noses, jaws, and lips, one cannot take the superficial attitude taken by your editorial toward a technique that will do these things. There is a place for those that have the knowledge and patience to do this kind of work, just as there is always a place for something besides mutilating surgery.

Our reply to Dr. Curtis, dated January 31, 1957, follows in part:

Your thoughtful letter of January 25, regarding a recent editorial in the Rocky Mountain Journal, is deeply appreciated. It happens that I am the author of the article in question. It was not my purpose to be unkind or unmindful of Dr. Mohs' meticulous work. You might judge

from the concluding sentence of the editorial that I was not too serious; in fact, I tried to inject a note of humor. If our columns never criticize (constructively, I hope), if we are without humor, and if no one take exception to what we say—then, Sir, we're slipping! It is gratifying to receive a letter from a remote colleague, especially one who heads a major department in a distinguished institution.

My own work is limited to reconstructive surgery, which might explain my being sensitized to your word "mutilating" as applied to surgery of superficial carcinomas. Permit me hastily to confess no personal experience with Dr. Mohs' technique. However, we surgeons of the Rocky Mountain Region see an amazing number of deformities from cancer paste applied in a mid-western state. No doubt the workers have destroyed many cancers, or lesions said to be cancers; thus the principle may have merit. It has been interesting to note the work of our colleague, Dr. Mohs, who has imparted dignity and precision to a type of technique long looked upon with disdain. Since no one of us has the answer to cancer, we must admire a colleague who has the courage and patience to travel a different road than that of irradiation and surgery. Invasive basal cell cancers, such as you mentioned, have discouraged all of us and I, for one, am not proud of some of the "mutilating" surgery. However, triumphs of reconstructive surgery, as performed by many of our courageous and skillful colleagues, are worthy of mention. On the more minor and curable tumors, adequate excision and immediate closure with local or remote tissues, followed by primary aseptic healing, in my opinion, is often conservative management compared with destruction *in situ*, inevitable secondary infection, and ultimate healing by fibrosis.

I join you in saying "there is a place for those that have the knowledge and patience to do this kind of work," for without such workers we will not progress. I also agree with you that "there is always a place for something besides mutilating surgery" — namely, reconstructive surgery. Often, as in this instance, controversy represents nothing more than honest differences of opinion. More often than not, each has its place. The combined efforts of your specialty and mine will progress in proportion to the pooling of our work, observations, and experiences for the best interests of our patients.

It has been a long time since the above stock heading entitled "Correspondence" has had some exercise. Since irradiation and surgery are the recognized effective therapeutic attacks upon cancer, other methods, at least for the time being, are bound to be controversial. We hereby solicit any other "Letter to the Editor" which would be *apropos*.

for MARCH, 1957

To the Editor:

In reference to the article written by Dr. Alfred Kahn, Jr., on "Social Security for Physicians" and which you have endorsed and published in the January issue of the Rocky Mountain Medical Journal, may I respectfully disagree with the precepts enumerated in this article?

Dr. Kahn has either unwittingly or designedly distorted the facts regarding benefits of this plan. He says "This is not insurance." However, if the benefits of Social Security were made available to me I can assure you it would be a very acceptable substitute for insurance.

He says the Social Security is "actuarially unsound" because of misappropriation of funds collected for this cause. A few days ago I saw two of my patients at a local bank. They cashed two Social Security checks totaling well over two hundred dollars. Maybe not *actuarially* sound, but *actually* they got the cash without challenge from the cashier. That is good enough for me.

Quite recently I received a brochure, which I assume was sent to all the doctors by a "Committee on Social Security for Doctors." It was a very comprehensive analysis of the germane benefits that the plan would yield. I attempted to contact my local colleagues to ascertain their reaction to the plan. To my surprise practically none of them had read the brochure, and only a few had any knowledge of the plan. I feel quite certain that if the doctors and their families would acquaint themselves with the facts they would be more receptive to the plan. "Compulsory coverage" is an anathema to many of the "big boys" in the higher economic bracket, and it is now obvious that they intend to inflict their judgment upon we of the less affluent group. So far as I know there has never been discussed or a poll taken in the State or local medical societies on Social Security. Why not a vote on the matter?\*

Since the medical profession is the only group not yet covered by Social Security, it reminds me of the old story of a mother proudly watching her son in a military parade, and at the conclusion remarked that her son was the only one that was not out of step.

The American Bar Association undoubtedly embrace our best legal minds and they have accepted the prescribed U. S. plan for Social Security. Are we of the medical profession attempting to establish ourselves as a very esoteric group of the intelligencia—so much smarter than all the other groups reaping benefits from this project?

Dr. Kahn is in fact assuming the self-appointed role of actuary, watch dog of the U. S. Treasury, moral and economic guide for the medical profession. "What price security"—is a bit too dramatic for me, for I am quite sure I shall continue to wallow in my ignorance, "economic catastrophe and moral decadence" despite his burst of eloquence.

Yours truly,

John D. Davies, M.D.  
Alamosa, Colorado.

\*Editor's Note: Colorado physicians did vote on this matter in January, 1956; 73 per cent favored voluntary coverage under S.S.; about 9 per cent favored compulsory coverage, and about 18 per cent were not in favor of any coverage.

# ARTICLES

## Down with the Love Gift

A Doctor's Wife, New Mexico\*

*Here is a gem, a shot-in-the-arm to your editorial staff. Our readers will recall editorials a year or two ago wherein we pled for colleagues to carry Blue Shield or comparable insurance to fulfill obligations we and our families sincerely feel — quietly, simply, and without embarrassment. Following a storm of protest by physicians sentimentally attached to the honor and glory of our sacred tradition, we crawled back into our editorial hole never — we thought — to be heard from again. But here we go again, and to this Doctor's Wife — thank you and Amen!*

THE purpose of this article is to serve notice that I am marching on the medical profession.

When I married a medical student years ago, I was fully cognizant, I thought, of the difficulties involved in becoming a doctor's wife — irregular hours, postponed meals, broken social engagements etc. What are a few inconveniences when you're in love? They would give me, I reasoned, not only opportunities to prove the depth of my devotion but also chances to appear as something of a heroine in the eyes of my friends.

What I did not know, and did not discover until my husband was established in practice, was that doctors never bill other doctors or members of their families for professional services rendered. Which has lead to the ghastly custom of the love gift. If a doctor's wife has an appendectomy she can't pay off her indebtedness to the attending surgeon in cool, clean cash. No indeed.

\*To avoid embarrassment of either the author or her husband that might result from opening an admittedly most controversial subject, the Editors have acceded to a request that her name be withheld at this time.

That would be too easy. If she wishes to express her appreciation and discharge her feeling of obligation she sends the surgeon a gift.

Years of scurrying around trying to find appropriate gifts for the medical men who have attended to my needs and to those of my family have taken their toll. I'm slowly cracking up under the strain of trying to decide whether Dr. A would enjoy a monogrammed shooting stick more than a Geiger counter, is Dr. B a lover of classical music, as his appearance and manner would lead you to believe, or is he, in the privacy of his home, a rock 'n' roll addict? I respectfully request the profession to give me one sound reason why I shouldn't be permitted to receive and pay medical bills like the average individual.

The problem of trying to select a gift that will be suitable and enjoyed by the recipient is further complicated by the problem of how much the gift should cost. Let us say that I have recently undergone surgery. I know that the anesthetist collects old silver and would welcome an addition to his collection. I know the surgeon collects matchbook covers and would drool over the

drawerful I have. But can I give the anesthetist a gift of substantial value and the surgeon a gift the component parts of which have been filched from various obscure bars and restaurants around the country? I know what these men would enjoy. I also know what they would have charged if I were a paying patient. Oh, those sleepless nights, both before and after I decide on which basis to choose the love gifts!

Most times that I need medical help for myself or for a member of my family I know what the charges would be if we were paying patients. But frequently I don't know what the attending physician's hobbies and after-hours interests are. Is he a skin diver, a bird watcher, a connoisseur of Martinis or a member in good standing of A. A.? What to do?

There are two choices of procedure, equally non-helpful. I can call either his secretary or his wife, state my dilemma in clear terms and ask for suggestions. There are always exceptions to prove the rule. But usually the secretary doesn't know, or refuses to admit, that there is anything that her boss needs or wants. The wife's response is, perforce, somewhat finger-in-the-mouth. She is happy to hear that I appreciate what her husband has done for me and/or mine. She is delighted that I and/or mine experienced such a rapid and uneventful recovery. And she makes small noises of protest at the mere suggestion that I want to express my gratitude in some tangible form. Finally, brought to heel by my statement that "I'm going to send him *something*, and I'd rather it would be something he wants and can use," she quickly volunteers the information that he is fresh out of paper clips, or only this morning mentioned the threadbare condition of his favorite pair of shoe laces.

As every doctor's wife knows, it's a vicious circle. When you want to make a love gift to a physician about whom you know

nothing except that he's an excellent doctor, you can't pry an iota of helpful information out of his wife. And you don't really expect to. Because when you're on the receiving end of such a call you respond in the same fashion. When the conversation reaches the Well-I'm-Going-to-Send-Him-Something-etc. stage, you, too, babble of shoe laces and paper clips. You don't actually believe that Mrs. X is going to follow your suggestions, but you always hope. Because the items you have suggested are inexpensive and couldn't conceivably become white elephants. And so many of the love gifts your husband receives are just that—not in themselves, but in your particular house.

My husband and I have a herd of these beasts, all of them representing substantial sums of money, all of them useful and attractive—to someone else—each of them representing a genuine but uninformed effort on the part of some other doctor's wife to thank my husband for his professional services. How much simpler life would be for all of us if you gentlemen would bill us as you do your other patients!

And how much healthier life would be for many of us! A doctor's wife will not hesitate to summon medical aid for a member of her family the moment it seems indicated. But numbers of us ignore symptoms, postpone checkups, hesitate to ask for advice because, as non-paying patients we're reluctant to take up the time of a busy medical man. I know that this is wrong. I also know that it is true. It's a situation that could be remedied overnight.

Please, gentlemen, stop flexing your ethical muscles and bill us. Set a flat fee or charge on a percentage basis. But bill us. If you doctors are reluctant to consider, and eventually honor, my request, my next appeal will be to all doctor's wives—to make all of their love gifts in the future living presents!

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#### TB NOTES

The knowledge obtained from tuberculin tests is of value to the community and to the health department in comparing the local rate of infection with that in other areas of the country. Uniform testing of school children is valuable to the health department in focalizing the problem in certain sections of the community, in certain

racial groups, and in special geographic regions. While it is desirable to test persons of all ages, this presents certain difficulties and the uniform testing of school children with a uniform dosage of tuberculin appears to provide a satisfactory means of comparing tuberculin sensitivity in various areas.—Michael L. Furcolow, M.D., *Am. J. Pub. Health*, September, 1956.



# *A Practical Outline In Treatment of Alcoholism\**

James W. Sampson, M.D.  
SHERIDAN, WYOMING

*A general practitioner from Sheridan, Wyoming, because of his community conscience developed an interest in alcoholic cases he had seen. He helped to organize a local A.A. and has now had the experience of treating 95 cases of alcoholism which he believes represent toxic psychoses. His treatment is based on "drying" them out in the hospital and a conditioned reflex type of therapy in conjunction with A.A. or other group therapy where indicated. The hospital stay averages three days. Out of the 95 cases treated there was one death.*

"He is not drunk who from the floor  
Can rise again to drink once more;  
But drunk is he who prostrate lies  
And cannot drink and cannot rise."

DWIGHT ANDERSON in his book "The Other Side of the Bottle" says this is a yardstick used by a conservative old London Club to define an alcoholic. This will not fit a good medical definition of the condition but it will at least serve as an introduction to the consideration of this appalling disease. The disease is appalling because many patients expire before they recognize their trouble. Further, I know of no other condition which has such an adverse effect on so many other people as well as the patient; wives, husbands, children, employers, and friends suffer greater or lesser degrees of anguish because of this condition.

Because of the fact that the word alcoholic means many things to many people, I would like to define "alcoholism" for the purpose of this paper as "the uncontrollable urge to drink not subject to will power" or "any individual whose drinking is out of

control and is affecting his personal, family or business life" is probably an alcoholic. The Johns Hopkins questionnaire of twenty questions can many times resolve the diagnosis.

I prefer to consider alcoholism under a classification of the psychoses in which the psychoses are considered as diseases of the mind which separate the individual from the real world around him.<sup>1</sup> The cause of the mental illness may be: (1) Primary dysfunction of the mind itself, in which case the psychosis is termed "functional." (2) Organic pathological processes arising within the brain (either from local disease or secondary to primary disease elsewhere); the resulting psychosis is termed "organic." (3) Secondary toxic effects upon the brain, the result of external toxic agents or of toxic products elaborated through metabolic defects; such conditions are termed "toxic psychoses." Thus it is obvious that alcoholism is a toxic psychosis.

Another aid in treatment is a classification used by Dr. John R. Montague of Portland, Oregon,<sup>2</sup> in which he classifies patients as:

1. Primary alcoholics.
2. Secondary alcoholics.

\*Presented at the 53rd annual meeting of the Wyoming State Medical Society at Moran, July 1, 1956.

### 3. Simple excessive drinkers.

The primary alcoholic is an individual whose problem is chiefly that of addiction—when this patient's addiction is broken, his rehabilitation is easy as he is a well integrated individual whose problem has been alcohol.

The secondary alcoholic is also an addicted individual; however, his drinking is secondary to some other condition such as feelings of insecurity, inferiority, or frustration, etc. Breaking addiction here covers only one problem. The frustrations, insecurity, and inferiority are still present and if deeply enough rooted will require considerable other care.

The simple excessive drinker is not an alcoholic—he gets drunk because he wants to and will probably continue to be the best support of the liquor industry. His drinking is based on choice and is not subject to compulsion. It is therefore not a disease, but it is a social problem of which we should all be aware. The drunk many times is the one who gives the alcoholic a bad name.

Dr. Fredrich Neihaus,<sup>3</sup> in conducting a panel on this subject, stated that "alcoholism, as a public health problem, ranks first in importance with fifty million adult drinkers." Out of sixteen people who drink, fifteen can, one can't—he is the alcoholic. Dr. Neihaus, in order to arrive at an unbiased opinion as to the effects of alcohol lists the entire population in regard to these attitudes toward alcohol as follows:

1. The abstainer.
2. The occasional social drinker whose drinking is restricted to the use of alcoholic beverages not more than twice a week.
3. The regular drinker who imbibes some alcoholic beverage every day. This consumption may be excessive but he is still definitely a controlled drinker. It is estimated that 2,225,000 individuals fall in this category.
4. The chronic uncontrolled addict; estimated 700,000 in this group in the United States of America.

"The Estes Rule" regarding the consumption per day of the moderate drinker is as follows: alcohol, 1½ ounces; whiskey, 3

ounces; wine, ¾ of a pint; beer, 1 quart.

"It seems that the above appraisal regarding the use of alcohol has some value, as it exacts an admission from any individual who takes any alcoholic beverage that he is a variety of an alcoholic. To only restrict this problem to the chronic uncontrolled addict does not seem feasible as probably few of this group would admit they are alcoholics. There is great shifting between the groups."

Acute alcoholism may occur as a "social accident," such as a convention, or any occasion where it is easy to take one or two too many. The doctor is seldom called up to treat the effects of a "spree" or "bender"—usually ice to the head and sedation is sufficient.

The treatment of the chronic alcoholic. Usually an alcoholic who has reached a point where he wants help, is still definitely under the influence of alcohol when he arrives to see you or you arrive to see him. This is a time when it is absolutely essential that when the first contact is made with the sick man it must be with warmth, friendliness, and understanding.

To underline that point, I would like to quote Dr. Daniel J. Feldman,<sup>4</sup> Department of Physical Medicine and Rehabilitation of the New York University, Bellevue Medical Center:

"If the physician is not prepared to be of help at a crucial time, the alcoholic becomes more and more confused and frustrated . . . and perhaps may drink more destructively because he sees no hope of help."

Another statement in Dr. Feldman's excellent article which I feel most pertinent is, "Only the physician with the courage to understand and not judge a patient for relapses, is in a position to help the alcoholic."

No alcoholic can obtain sobriety unless he wants it himself and we are only wasting our time when we treat hangovers. My experience with the disease started about nine years ago, at which time I had a fair number of alcoholics causing me considerable trouble. They called me at all hours, failed to take my advice and exhibited all the usual obnoxious characteristics of con-

firmed alcoholics. At that time I was giving large doses of vitamin B complex and advising them to "stick to beer." I had just given a patient a large dose of "B" when another patient saw the syringe and said, "That reminds me of how many of those things I've had to take . . ."

I asked, "What in the world were you taking them for?" He replied, "If you weren't my doctor I wouldn't tell you, but I used to be the biggest drunk in the east." I asked how in the world he got sober and he replied he had been one of the first fifty AA's in Cleveland, Ohio. I, in turn, requested his starting a group in Sheridan; he said "Get them together and we'll get started." So I corralled four of the best, threatened them with no uncertain language, and then they came to the meeting—I was present to learn the big "secret."

I may state that now, after nine and a half years of intense interest, I still have to learn the "secret"; and there still seems to be much that needs to be learned. What peculiar alchemy takes place in the mind of the drinker who wants to quit, the obese individual who finally diets, or the excessive smoker who stops? I don't know. I only wish I could find out the thing that crystallizes the action so we could implement it.

In passing interest, of the four men who appeared at that first meeting, two have not had a drink since, one slipped at six months and again at a year and has been dry ever since, and the other, I regret to say, has never made the program. Since its inception in Sheridan, the AA group has provided us with counseling, nursing, and an opportunity to study the disease at first hand. We now, when possible, hospitalize the patient, starting him as a rule on Thorazine or Sparine, 1 amp, an intravenous of 1,000 cc. of 5 per cent glucose in saline together with 25 units of plain insulin is started; this is given daily and increased slowly to 50 units; if there is a reaction we use 50 per cent dextrose, 50 cc. in the vein; 40 to 80 units Depo ACTH or 15 units ACTH every six hours are started. I mention the barbiturates only to condemn them. The only sedation used is that mentioned. As a rule the patient is cooperative and hungry

the next morning. If he is sufficiently clear, we request some AA members to call.

If withdrawal has been too abrupt or for reasons not obvious to us, delirium tremens develop, this is usually promptly quieted with two ounces of whiskey or an intravenous infusion containing 5 per cent alcohol. We have had one death in the past several years. If it appears after two to five days (or more if necessary) of hospitalization, the patient seems capable of attempting sobriety with AA aid, he is dismissed. We are impressed with the need to give vitamins and ACTH which seems to cut down a great deal on the demand symptoms. We seldom use Antabuse as we feel it dangerous and not an answer to the basic desire of the patient to quit drinking.

Some patients, because of their definite physical craving—which is true addiction in my opinion—require further treatment. We have used, and we feel successfully, the conditional reflex therapy as outlined by Dr. Walter L. Voegtlin in the American Journal of the Medical Sciences, June, 1940, now used in a number of centers, primarily in Seattle and Portland, Oregon, where at Raleigh Hills Sanitarium, I was privileged to observe its use. My observation is that certain patients should be treated in a sanitarium such as Raleigh Hills which specializes in the treatment of alcoholism, when local efforts fail or when it seems obvious that the patient will do better away from home and local prejudices. The chief problem, as I see it, is the expense involved in sending patients long distances from home.

This conditioning should only be given after the patient is educated somewhat to this disease. He is explained that it is necessary to break his addiction and the course of emetine, pilocarpine, and ephedrine is given on an empty stomach, followed by copious quantities of various types of alcoholic beverages. It is my feeling that conditioned reflex therapy in conjunction with AA or other group therapy is the method of choice with the strongly addicted patient. It is my opinion that neither method works alone with some of these patients. Because of the danger and number of complex factors entering into the type of ther-

apy, I do not feel it should be given unless the physician in charge has observed its use and further, I believe that lay group therapy such as an active AA group or trained lay counsellors should be available.

Since February, 1950, we have hospitalized fifty-eight patients, for a total of ninety-five admissions with a diagnosis of alcoholism; of the fifty-eight, thirteen have been women. The average age of our patients or patient average has been 45 years. The average duration of stay was three days with the longest hospital stay of ten days; the shortest period, eight hours. There was one death. This death was in a 45-year-old man who had been dry for about four months before going on a spree, during which time he consumed large quantities of liquor but from 9 p.m. Friday until noon Saturday, when he was admitted to the hospital, he had taken five pints of whiskey and four quarts of wine.

It has been my observation that when a patient returns to drinking, after a period of sobriety, his drinking pattern is just what it was when he quit, but that his body chemistry is not adjusted to the large quantities he drinks and the patient can be desperately ill.

For every hospital case we have had for the past several years, we have treated at least two or three on an out patient basis. The recovery rate is a matter which I cannot prove but we are impressed with the belief that of those patients with a sincere desire to quit 50 per cent will do so without too much effort, 25 per cent will make it with help and several slips, and 25 per cent will not make it no matter what method is used.

Alcoholics have become a challenge to us. We are often disappointed but at least we are convinced, as is our nursing staff, that these patients are suffering with a disease and something can be done for them.

Going back to the classification of psychoses as outlined, it is my premise that treatment directed at a toxic psychosis and treating it as though it were functional psychosis will fail, just as treating an organic psychosis as a functional psychosis will fail. We must treat this disease for what it is—a self-inflicted addiction to a poisoning which deprives a patient of his

reason. This can be done with considerable ease today using the drugs available—insulin, glucose, vitamins, Sparine or Thorazine, when possible in the hospital, and such special methods as the conditioned reflex when needed, together with a great mass of recovered patients such as are found in AA, who find such assistance to your patient beneficial to themselves. I would like to caution you to the fact that AA is not acceptable to all patients and their wishes should be followed in this matter.

I may add that treating functional psychoses as toxic ones will also fail. Nor can we ignore the fact that patients suffer with more than one condition. It takes time, effort and clinical judgment to determine that 10 per cent of an ailment is, say, functional, and 90 per cent toxic, or vice versa in any ratio. It is important that we as family physicians, who, next to the clergy are most frequently contacted in the problem of alcoholism, be aware of it as a disease. That we counsel wisely and treat the patient sensibly.

I would like to urge that when we as individuals are acting as hosts in our own homes, set an example for our friends who do not understand the alcoholic. When entertaining guests, give such guests a multiple choice of beverages. Don't say, "Will you have bourbon and water or bourbon and soda?" Say instead, "Will you have bourbon and soda, or coffee or tomato juice?" or whatever other beverage you have on hand. People hate to be obviously different and may accept the "first drink," the one that does all the damage in an alcoholic rather than fuss or seem peculiar, further it may surprise you how many times a normal drinker would rather have something besides an alcoholic beverage at that moment.

Alcohol is here to stay and to me, legislating it out is as sensible as legislation against gasoline because of the toll of the automobiles on the highways of America. Education of the public, the clergy, and the medical profession will bring to us, and will restore to productive normal living, many patients—three, four or more years sooner than has been heretofore.

No patient can be more exasperating,

more annoying or make one more angry than an alcoholic—on the other hand, when the patient desires help, and when properly treated, no patient can be more satisfactory or yield a higher feeling of satisfaction to the practicing physician.

#### REFERENCES

<sup>1</sup>De Re Medica, Fourth Edition; Eli Lilly and Co., 1951, Page 152, Table 15, Indianapolis, Indiana.

<sup>2</sup>John R. Montague, M.D.: Portland, Oregon; Personal Communication.

<sup>3</sup>Fredrich W. Niehaus, M.D.: The Journal of the Mid-West Panel Discussion Clinical Society, Volume 16, No. 3, August 1955, Omaha, Nebraska.

<sup>4</sup>Daniel J. Feldman, M.D.: "The Physician and the Problem of Alcoholism," The Prescriber, Volume 3, No. 1-22-34 January 1956.

<sup>5</sup>Walter L. Voegtlin M.D.: "The Treatment of Alcoholics by Establishing a Conditional Reflex," The American Journal of Medical Sciences, Volume 199, Pages 802-810, June 1940.

<sup>6</sup>James W. Sampson, M.D.; and J. J. Wild, M. D.: Clinical Records of Sheridan County Memorial Hospital, Sheridan, Wyoming.

## The Dead Fetus and Hypofibrinogenemia\*

C. J. Manganaro, M.D.,  
and D. J. Clark, M.D.

STERLING, COLORADO

*Complications of fetal death which may result in serious hemorrhage are described in this unusual case.*

SEVERE hemorrhage has been known to occur in obstetrical patients who have a defect in the coagulation mechanism. In 1901, DeLee reported a case of utero-placental apoplexy who died after excessive bleeding, due to an "hemophilia-like" condition. In 1936, Dieckmann reported abnormally low plasma fibrinogen levels in five of eleven cases of abruptio placenta. Since then, there have been many reports of hemorrhage due to a deficiency of fibrinogen occurring in various obstetrical complications. Fibrinogen deficiency has been reported in association with abruptio placenta, amniotic fluid embolism, intra-uterine retention of a dead fetus, convulsive eclampsia and surgical trauma. The common feature of these cases has been the occurrence of hemorrhage and blood which fails to clot. It has been demonstrated that the administration of fibrinogen restores the clotting mechanism to normal.

#### The Coagulation Mechanism

The exact mechanism of coagulation in man is not fully known; however, the main

features are established. Thromboplastin precursors of tissue origin are released by tissue injury and these react with platelet derivatives and certain plasma factors to form thromboplastin. Thromboplastin activates prothrombin to form thrombin. In the presence of thrombin, fibrinogen is converted to fibrin and the fibrin clot forms.

Intravenous administration of thromboplastin in experimental animals results in intravascular coagulation with depletion of the circulating fibrinogen. If this is carried to near complete depletion, hemorrhagic manifestations occur with minor trauma. If thromboplastin administration is stopped, the circulating fibrinogen is replenished by fibrinogen formed by the liver.

Hypofibrinogenemia associated with obstetrical complications is of uncertain etiology. It is known that the placenta and decidua are rich in thromboplastin. It seems likely this thromboplastic material enters the maternal circulation and results in intravascular conversion of fibrinogen to fibrin, thereby depleting the circulating fibrinogen. The high intra-uterine pressures, which exist in abruptio placenta and in the tumultus labor associated with amniotic fluid embolism, probably force large

\*Presented at the Fourth Annual Northeastern Colorado Medical and Surgical Clinics, Greeley, Colo., May, 1956.



amounts of thromboplastic substances into the maternal circulation resulting in sudden depletion of fibrinogen and frequently to afibrinogenemia. Rupture of membranes to reduce intra-uterine pressure has been shown to slow or stop fibrinogen depletion and the intravenous administration of fibrinogen, while high intra-uterine pressure remains, results in only temporary increase in fibrinogen concentration.

The mechanism of fibrinogen depletion following prolonged retention of a dead fetus is different. This results from gradual absorption of thromboplastic substances from the placenta or decidua so that fibrinogen is converted to fibrin at a rate greater than the liver can produce new fibrinogen. Most of these patients have a gradually decreasing fibrinogen concentration over several weeks before hemorrhage occurs. Hemorrhage may occur before labor but usually occurs during or after labor. After delivery of the fetus and placenta, there is rapid spontaneous recovery in fibrinogen concentration. Often the fibrinogen levels will not fall to critical levels, and labor and delivery will occur without unusual hemorrhage. The falling fibrinogen concentration is reversed by evacuation of the uterus.

If the coagulation defect goes untreated, hemorrhage through the genital tract, and into the gastro-intestinal tract, lungs, kidneys and brain occur. Unless promptly treated, irreversible changes in vital organs will occur and shock and death may result.

Hodgkinson and his associates have made extensive studies of fibrinogen concentrations in normal pregnancy and in certain complications of pregnancy. They found the average pre-delivery plasma fibrinogen concentration was 303 mg. per cent plasma. This compares with an average concentration of 267 mg. per cent in non-pregnant adults. Normal labor and delivery produces no significant change. In placenta previa there was no significant change even with severe hemorrhage. In ten cases of abruptio placenta, all showed below normal fibrinogen concentrations although only two had symptoms of shock and incoagulable blood. These two had the lowest fibrinogen concentrations in the series. In the two cases

of amniotic fluid embolism in which blood studies were done, both had low fibrinogen concentration. In patients with a dead fetus retained more than five weeks, all cases showed a gradual decreasing fibrinogen concentration. This began in some cases weeks before the onset of labor. In one case, spontaneous hemorrhage occurred from the gums and nose before the onset of labor. Intravenous administration of fibrinogen before the onset of labor elevated the fibrinogen concentration temporarily but the concentration fell to the pre-injection levels in one to two days. All these cases began to recover when the uterus was evacuated.

The authors state that bleeding will occur when the fibrinogen concentration falls below 90 mg. per cent. They state that 150 mg. per cent is the critical level. Below this level, labor or cesarean section may precipitate a further fall and excessive bleeding may result. Above this level, labor or operative emptying of the uterus may be done with safety.

Many cases of hypofibrinogenemia have been studied to find out if any other defects of coagulation occur in association with this syndrome. Reported cases show various other abnormalities. Many have moderately decreased prothrombin concentration. None has shown depression to critical levels. Platelet counts are frequently decreased, although in some series platelet counts have been normal in all studied cases.

There has been speculation as to whether circulating fibrinolysin of placental origin may cause depletion of fibrinogen. Some early reports indicate this, but later studies have not confirmed it.

#### **Diagnosis**

When fibrinogen concentration is depressed below critical levels, bleeding will occur. The diagnosis should be suspected when a patient with a retained dead fetus bleeds excessively before or after delivery. Absence of perineal or cervical lacerations and atony of the uterus reinforce the suspicion. Blood passed by these patients does not clot as does normal blood. Actually, no test is necessary, as the postpartum blood is cherry red and remains in a liquid state on the table.

Diagnosis can be confirmed by determina-

tion of fibrinogen concentration of the plasma. However, this is time consuming and frequently a decision as to treatment must be made before results are available. The clot observation test is more rapid and serves to detect hypofibrinogenemia if severe enough to cause bleeding. This test consists of putting 5 cc. of whole blood in a test tube and incubating it at 37° for one hour. With fibrinogen levels above 150 mg. per cent, a stable clot will form within 30 to 60 minutes. With fibrinogen levels below 60 mg. per cent, no clot will form. Between 60 and 150 mg. per cent, a clot will form but will dissolve within one hour.

Another rapid semiquantitative test for fibrinogen was devised by Bonsnes and Sweeney. This is done by adding thrombin to a sample of the patient's plasma and observing time required for a clot to form. This test is said to be reliable in ruling out a fibrinogen level low enough to endanger hemostasis. Lower levels of fibrinogen yield an unstable clot. Time required for a clot to form and to disintegrate are recorded. These values cannot be compared to fibrinogen levels but are valuable in following a patient in labor, in that they indicate trends. The Schneider test is a further refinement in which serial dilutions of the patient's blood are used. It is reported as the highest concentration in which a fibrin coagulum forms.

Management of this syndrome should start as soon as diagnosis of a retained dead fetus is made. This condition is frequently associated with hypofibrinogenemia and the plasma fibrinogen levels determined periodically. These tests should be done every week, starting five weeks after fetal death. Danger of hemorrhage is present if the fibrinogen concentration approaches 150 mg. per cent plasma. Most patients with a dead fetus retained over a long period will show decrease in fibrinogen levels. Labor and delivery may occur spontaneously before concentration falls to dangerous levels. These cases should be followed through labor with a clot observation test or Bonsnes-Sweeney test every two hours, and specific treatment given if there is failure to clot, or it a clot forms and then dissolves.

In cases in which labor does not occur

spontaneously before critical fibrinogen levels are reached, means must be found to empty the uterus. Rupture of membranes or intravenous administration of dilute pitocin solution, or both, usually induces labor and delivery. If this fails, hysterotomy may be necessary. It is important to raise the plasma fibrinogen concentration to 150 mg. per cent, or preferably above 200 mg. per cent, before surgical procedure or induction of labor. Then follow the clotting mechanism by means of the clot observation test during the labor or surgical procedure, because labor or operation may precipitate a further drop in fibrinogen concentration. When the uterus has been emptied, a rise in fibrinogen concentration is anticipated.

If excessive bleeding occurs, blood lost must be replaced with whole blood. Plasma may be used to combat shock but dextran should not be used, because it acts to precipitate fibrinogen as fibrin and thereby lowers fibrinogen concentration. Fibrinogen may be replaced by pure human fibrinogen prepared from human plasma. This is supplied by Cutter Laboratories in 1 gm. ampules. It is supplied in the dry state and is prepared for administration by diluting to 50 cc. with water. It may be given rapidly intravenously. Usually two to six grams are required in cases with hemorrhage.

Minor hypofibrinogenemia can be corrected by blood transfusion. Banked blood shows rapid loss in fibrinogen concentration so, if it is necessary to use whole blood, it should be as fresh as possible. A liter of blood will furnish one to two grams of fibrinogen. Fibrinogen is more stable in lyophilized plasma. Each unit of plasma will supply about one gram of fibrinogen. Some English authors recommend plasma to overcome fibrinogen deficiency since other coagulation factors may also be present in the plasma. They recommend using plasma reconstituted to triple or quadruple strength. Pure fibrinogen is expensive and carries the same hazard of homologous serum hepatitis as does plasma.

#### CASE REPORT

The patient, aged 29, para II and gravida III, had her last menstrual period May 28, 1955. She has one living child, aged 7, delivered after

normal pregnancy and labor. The second child was stillborn at term after apparently normal pregnancy and labor four years ago. The patient was Rh negative and her husband Rh positive. Past history, otherwise negative. She was first seen on August 18, 1955. Her course had been uneventful to that time. General physical examination, negative, and pelvic examination was consistent with a two-month pregnancy. Blood pressure, 118/62; weight, 132; urine, normal. On October 24, 1955, she reported a sudden increase in weight and edema of a few days' duration. Weight, 152 lbs; blood pressure, 146/88. She had edema of feet, ankles, hands and face. The uterus was almost to the umbilicus. No fetal heart tones could be heard. She had albuminuria and 17-20 hyaline casts per low power field in a centrifuged specimen. Her blood NPN was 22 mg. per cent. She had felt fetal movements first about one week before but had not felt any for the previous two days. She was treated with bed rest, Serpasil-Apresoline, ammonium chloride and antibiotics. Blood pressure was 132/80 two days later and thereafter remained in the normal range. Urine was normal after one week and weight dropped to 139 lbs. She never felt fetal movements after that and fetal heart tones were never heard.

Following hospitalization, she felt well and weight remained about 140 lbs. Blood pressure continued normal and frequent urinalyses were normal. The uterus stayed about the same size. X-rays of abdomen taken November 14, 1955, and December 27, 1955, showed no change in fetal size and no overlapping of fetal skull or collapse of the fetal body. Ascheim-Zondek test on January 3, 1956, negative.

She was admitted to the hospital on January 6, 1956, for medical induction. Induction was by slow intravenous drip of 1000 cc. of normal saline, containing 8 minims of pitocin dripping 25 drops per minute. She delivered a macerated fetus after three hours of labor. There were no cervical or perineal lacerations and the uterus contracted well immediately postpartum. Bleeding persisted and the blood failed to clot and stood in liquid pools on the drapes and floor. Bleeding was not severe and there was no shock. Blood was drawn for Bonsnes-Sweeney test and this was reported to form a clot which dissolved after a few seconds.

One gram of fibrinogen was given rapidly intravenously and the blood flowing from the vagina was observed to clot. There was no more excessive bleeding. The Bonsnes-Sweeney test was reported normal two hours and twelve hours later. The remainder of the postpartum course was uneventful.

Approximately 100 days after delivery, the patient developed jaundice associated with nausea, vomiting and low grade fever, but no pain. There was an elevation in the direct and indirect Vandenberg and the thymol turbidity test. She is now making satisfactory recovery

under routine treatment for virus hepatitis.

### Discussion

This was a case of fetal death from pre-eclampsia, after four and one-half months of pregnancy, with intra-uterine retention of the dead fetus for two and one-half months. Delivery was by medical induction of labor, with intravenous pitocin drip. The postpartum course was complicated by hypofibrinogenemia. This was successfully treated by intravenous administration of fibrinogen. The case also demonstrated one of the complications of fibrinogen administration—namely, homologous serum hepatitis.

This case was not attended by severe hemorrhage or shock. A relatively small amount of fibrinogen corrected the coagulation defect. Unfortunately, absolute fibrinogen levels were not available, but the fact that the blood did not clot indicated a concentrate of less than 90 mg. per cent. Undoubtedly, this patient would have had more severe fibrinogen deficiency if induction had been delayed longer.

### Summary

Intra-uterine retention of a dead fetus may be attended by hypofibrinogenemia, which may result in serious hemorrhage. This fibrinogen deficiency is apparently the result of intravascular precipitation of fibrinogen to fibrin, due to absorption of thromboplastic substances from the placenta or decidua. These patients have gradual depletion of fibrinogen over several weeks. In some, spontaneous labor and delivery will ensue before fibrinogen levels reach a critical level. In others, the concentration will fall to dangerous levels and treatment must be given. This may be anticipated by regular determinations of fibrinogen concentrations. If it is known absolutely that the fetus is dead, the uterus should be evacuated before critical fibrinogen levels are reached, or after fibrinogen concentration is raised by administration of fibrinogen. After the uterus is emptied, the fibrinogen level will not fall further, but will gradually increase. Any decrease in fibrinogen concentration below 150 mg. per cent should be treated with intravenously administered fibrinogen.

# Transient Synovitis of The Hip Joint In Children\*

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THIS is a review of the cases of benign, transitory arthralgia of the hip joint hospitalized at The Children's Hospital in Denver during the period from January, 1950, through December, 1955. This syndrome or disease is magnified in importance solely in the differential diagnosis from the potentially destructive and disabling diseases of the hip joint in childhood. A number of articles have been published in which this syndrome or disease has been discussed. Articles by Ferguson, Fairbank, Lucas, and Todd were mainly concerned with the differential diagnosis of this condition from more serious diseases of the hip joint in children.

Disagreement concerning the exact nature and etiology of this condition or even its existence as a separate disease has resulted in a number of synonyms for the same entity. Transient synovitis of the hip joint appears to be the most satisfactory descriptive term; but phantom hip, toxic synovitis, transitory arthritis, intermittent hydrarthrosis, coxitis serosa seu simplex, and transitory coxitis, to name only a few, have also been used.

The exact pathologic process in this disease remains obscure since the indications for biopsy or open operation are not present if this diagnosis is entertained. Finder reported the pathologic studies on one case of transitory synovitis of the hip in which operative intervention was employed because of long duration of hip disease suggestive of tuberculosis. A chronic synovitis of the hip joint with collateral osteoporosis only was noted. He felt that, in transitory

synovitis of the hip, the synovitis with effusion constituted the entire disease process while in other hip joint lesions it may merely represent the point of departure into any one of several disorders of the hip.

None of the cases in this series from The Denver Children's Hospital were biopsied, except one related case of synovitis of the knee. The pathologic process consisted of acute inflammation and swelling of the synovial membrane with effusion. There was no bony involvement, and all bacteriologic studies were negative.

According to Edwards, the aspirated fluid in this condition is yellow and clots readily. No bacteria are present, and the cell count and chemistries on the fluid are normal. Four cases in this series were aspirated at The Children's Hospital in Denver. The fluid was xanthochromic in all cases and was negative on bacteriologic studies. Finder advised that if more serious disease of the hip is suspected, especially tuberculosis and pyogenic arthritis, the joint should be aspirated without hesitation.

The etiology of this disease remains obscure. Trauma appears to be significant in only a small percentage of cases. Butler, Ferguson, Edwards, and Finder all felt that this condition was a reaction to a nonspecific focus of infection somewhere else in the body, usually the upper respiratory tract. Most of the series reviewed correlated the synovitis with a recent or active upper respiratory infection. Transient synovitis of the hip has also been reported as a complication of measles, typhoid, pneumonia, and scarlet fever. Allergic reaction to other than bacterial antigens has also been suggested as a cause but has not been substantiated in any of the series reviewed.

\*Presented at Children's Hospital Staff Meeting, June, 1956, Denver. The author is a resident physician, Department of Surgery, Division of Orthopedics, University of Colorado Medical Center.



Transient synovitis of the hip is a disease of childhood, usually ranging in age from three to ten years. Three of the papers reviewed noted an average age of five and one-half years and another of seven years. Males appear to be more commonly affected than females, with up to 80 per cent males. The colored race is apparently immune to this malady.

The transient synovitis is one of the major causes of hip pain in this age group. The clinical picture may have an acute or insidious onset. Symptoms are usually present only one to two days before medical care is sought but may be noted for several weeks. The predominant symptoms are those of pain and limp. The pain may be mild or so severe that all weight bearing is refused on the affected extremity. The pain may be localized in the hip, thigh, inguinal region, or knee, and rarely in the lower leg, radiating from the hip. A limp is nearly always present, and again this may vary from mild to severe. The patients frequently have an upper respiratory infection or have just recovered from one.

The examination reveals spasm of some or all the muscle groups about the involved hip. Palpation over the hip anteriorly will often elicit tenderness. Soft tissue swelling, inguinal adenopathy, and tenderness over the greater trochanter are usually absent. The leg is held in position of comfort, usually flexion and adduction. The degree of restriction of hip motion varies considerably. Indeed, the motion may be almost unrestricted or may be limited in all directions, especially abduction, and internal and external rotation. Atrophy of the thigh is not noted as a rule.

The temperature is frequently elevated to a mild amount, usually in the range of 99 to 101°F. The temperature elevation is not septic in type and will subside generally without antibiotic or salicylate therapy. The white cell count is usually normal or slightly elevated with a slight shift to the left in the differential. The old tuberculin and serology are negative. The sedimentation rate is either normal or slightly elevated. If the hip is successfully aspirated, xanthochromic fluid is obtained which clots readily and is

bacteriologically negative. The cell count and chemistries on the fluid are normal. The radiographs of the involved hip are negative for any bony changes. Soft tissue changes on x-ray were noted by Donaldson in 60 per cent of his cases of transient synovitis of the hip. Drey felt that definite soft tissue changes were present radiographically in 90 per cent. There may be prominence of capsular shadows superiorly and laterally with minimal widening of the joint space from effusion. (Day stated that the swelling of the synovial membrane is associated with a swelling of the adjacent musculature, especially the iliopsoas in nine out of ten cases.)

The treatment consists of bed rest for the mild cases. If more severe, bed rest with three to five pounds of Buck's or Russell's traction will result in rapid subsidence of symptoms. Aspirin may be given for pain and antibiotics, if a definite focus of infection is present in the upper respiratory tract or elsewhere. Antihistamine has been suggested for those with an allergic history. When the pain and spasm have subsided, ambulation with crutches may be carried out for one to two weeks, followed by gradual weight bearing.

The muscle spasm should be gone and hip motion normal after only a few days of treatment or more serious hip disease suspected. Three articles noted relief of symptoms within four or five days while two other authors recorded two to six weeks for recovery of their patients. The prognosis for full and permanent recovery is excellent. Only one case of relapse was reported in the literature.

If the joint symptoms and signs persist in spite of adequate therapy, another cause for these must be sought. Transient synovitis of the hip should be a diagnosis of exclusion and considered tenable only after osteomyelitis, Legg-Perthe's disease, pyogenic arthritis, tuberculosis, rheumatoid arthritis, and rheumatic fever have been ruled out by an adequate work-up.

Legg-Perthe's disease will in all likelihood present x-rays which are diagnostic. The clinical course in Legg-Perthe's disease is chronic, and that in transient synovitis



# Recent Advances in Cataract Surgery

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*Historic background, evolution and present concept  
of this important operation are of general interest.*

THE LONG and fascinating history of cataract surgery is a remarkable chapter of medicine. As in general medicine, the greatest strides have been made in the last 200 years. The previous 2,000 years had offered only the rather brutal couching operation for treatment of cataract. About 1750, reclination was abandoned in favor of less traumatic procedures. Daviel is credited with the first complete extracapsular cataract extraction. This operation continued as the operation of choice until the end of the 19th century. Many famous operators contributed to the refinement of this procedure. The intracapsular cataract extraction timidly raised its voice in many different parts of the world about this time, but the credit for popularizing this procedure in America belongs to Smith, of India, whose tour of America had many aspects of a vaudeville tour.

Many Americans were impressed with the possibilities of this technic and set about to refine the procedure. About 1914, Knapp introduced the use of forceps to effect a more precise delivery. Appleman, of Philadelphia, contributed greatly to this exciting new technic. It is difficult to realize that less than fifty years have resulted in an almost routine intracapsular extraction as opposed to the reservation of extracapsular extraction for special cases. This type of intracapsular extraction, along with development of almost precision technical manipulations during surgery, undoubtedly has been the most remarkable advance in cataract extraction over these past few

years. This advance has been in a large part due to great strides made in anesthesia. A parallel can be made between the one minute leg amputations in the era of Pare, and the careful one hour amputations made today. Rapid surgery, necessary in times of poor anesthesia, has no place in modern medicine, especially in ophthalmology, where the price paid for rapid or careless surgery is great. However, one can get into trouble by taking too much time, "dilly-dallying" or "fiddling."

In the 1920's, more careful preparation of the patient was conceived and practiced. This pre-operative care has gradually evolved, until at the present time, a fairly complete knowledge of the patient's condition is at hand before surgery. It is now routine to expect a general medical work-up, chest x-ray, dental surgery, blood chemistry studies, formed blood element counts, blood serology, blood sugar, urine studies, and culture of both cul-de-sacs. Of equal importance is the manner in which the patient is sedated prior to surgery. The patient should enter the hospital one to two days before surgery, so that he can become accustomed to his surroundings, and the evening prior to surgery, his rest should be assured by the administration of 0.1 gm. of Nembutal or Seconal, plus a small dose of Demerol, to see if the patient is sensitive to any of these sedatives. On the day of surgery, we have found that the usual patient is adequately sedated by the use of Nembutal 0.1 gm. one and three hours pre-operatively, and Demerol 50 to 75 mgm, forty-five minutes pre-operatively. Most patients will be tranquil, cooperative, and

\*Presented before the annual meeting of the Utah State Medical Association at Salt Lake City on September 8, 1955.

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unafraid. Thus a major step toward successful surgery has been achieved.

Perhaps the most spectacular recent advance in cataract surgery has been the use of local anesthesia and akinesia. The principle of the lid block, as suggested by Van Lint, and the seventh nerve block, as introduced by O'Brien, have greatly increased the safety of cataract extraction, while reducing the nervous tension of the surgeon. The akinesia with the anesthesia of the retrobulbar block, further increases the safety of cataract surgery. The modern resident can scarcely realize the clinical difficulties and hazards in cataract surgery, when the surgeon was at the mercy of the patient's desire to squeeze, look up, look down, and his involuntary response to oculo-auditory reflexes. Many of the movements were accompanied by results disastrous to the well being of the eye. In contrast, at the present time, given a good nerve block, and a good retrobulbar injection of procaine, the eye assumes a prominent, quiet, stationary position. The technic of retrobulbar injection is well standardized at present, consisting of the injection of 1 to 2 c.c. into the muscle cone in the region of the ciliary ganglion. The drug of choice has recently been the subject of discussion. Xylocaine has been suggested as a better agent than procaine, its only objection being a lessened akinesia. On the other hand, the duration of action is longer and is more suitable for this reason, for the occasional operator, and for training resident surgeons who may be somewhat slower. The introduction of hyaluronidase has served to make the retrobulbar injection more efficient and productive of a softer eye. It should be remembered that if the operator desires the pupil to remain small during surgery, it is necessary to instill pilocarpine before the retrobulbar injection. Eserine is not suitable because of its mode of action. A variety of new local anesthetics for instillation have been introduced, but pontocaine, and cocaine continue to be the most popular drugs.

Many people choose to do cataract surgery under general anesthesia. Here the

combined use of intravenous, short-acting barbiturates, and nitrous oxide-oxygen mixture has proved its worth. A great stride in securing even more patient relaxation was made by Kirby in 1945, with the introduction of curare. Many workers have reported a marked reduction of vitreous loss when using this drug.

When the patient has reached the point where the surgery begins, the choice of a blepharostat, or none at all, has in modern times been subjected to much scrutiny. Claims are made for less pressure on the globe from various specula, lid sutures, and lid clamps. Unfortunately, documented proof is lacking in many of these claims. Many operators continue to use a superior rectus suture as a holdover from the day of poor control of ocular motion, but more and more operators today are dispensing with this formerly invaluable aid. However, it is nice to have when you need it. Another procedure of much greater service is that of canthotomy in any case in which there is the least suggestion of insufficiency of the palpebral aperture. This is another *holdover* that is still proving its worth.

The preparation of the surgical field is unfortunately based a great deal on older empirical grounds, and encompasses many and diverse drugs from phisodern to argyrol. The observation that all of them perform a good job testified to the remarkable antibacterial properties of the eye.

The choice of a Van Lint type sulcus based conjunctival flap, or a limbal based flap, or no flap at all, continues to be a controversial question. Strong advocates of either school may be found in the literature. In general it would appear that in addition to sutures, regardless of the type, it would be advisable to use some type of conjunctival flap for added safety. The use of a Graefe knife, or a keratome for the corneal section appears to be largely a matter of choice, and comparable results are achieved with either method.

Much less equanimity exists in regard to choice of the type of suture that should be used to close the cataract incision. A volume could be written on the various sutures that have been introduced since 1867. How-

ever, most people agree with Alvis, that closure of the wound is one of the most important phases of the operation for cataract. This is in contrast to the feeling twenty-five years ago, when more attention was given to making the section. Many of the postoperative complications are directly related to a failure to accomplish this, including leaking wound, flat anterior chamber, peripheral anterior synechiae, aphakic glaucoma, soft eye, detachment of choroid, weak union of the wound, postoperative hyphema, incarceration or prolapse, wound infection, and undue postoperative astigmatism. However, I sometimes wonder if we have really reduced the above complications a great deal with all the complicated sutures used today.

McLean has listed as his criteria for cataract sutures:

1. Sutures should be inserted in solid cornea or scleral tissue, and not conjunctiva.
2. Suture should be placed before the section is made. No extensive manipulations should be done after the eye is opened.
3. It should go through, not over the wound lips, to give firm closure and exact apposition.
4. Wound should be covered by conjunctiva.
5. The method should not be complicated.

In general, most present day operators use one of four types of sutures: McLean preplaced sutures, Vierhoff tract sutures, Stallard sutures, or post-placed sutures as advocated by Kirby. At least two of these do not meet the criteria suggested. In general, the operator should use the suture which, in his hands, gives the most consistently good results, regardless of theoretical flaws which it may have. At Wills Eye Hospital, most of the residents seem to prefer, and to be most proficient and confident with, the tract type suture. Personally, I have been slow to use any sutures; I now use a limbal based flap somewhat similar to that used in the Elliot trephine operation, a mattress scleral conjunctival suture is used to secure the conjunctival flap to the sclera as advocated by Bonocalto.

The next step involves the type iris procedure to be done. There appears to be

a large swing toward round pupil extractions with peripheral iridectomy or iridotomies. However, the complete iridectomy unquestionably remains the safest procedure, and the one least likely to produce poor results. Postoperative iritis appears to be at least four times as common in the round pupil extraction. At the very least, I would urge you to do a complete iridectomy in cataract extractions on one-eyed patients. The so-called advantages, which are flimsy at best, in favor of round pupil extraction do not outweigh the added risk of total blindness. It is my feeling that the chief reason for attempting a round pupil operation is the surgeon's personal vanity. I predict that within a few years the trend will swing back to complete iridectomies.

The type delivery of the lens again appears to be largely a matter of individual choice of the operator, but in general is divided into two groups, erisophake delivery, and forceps delivery. Kirby has done a great deal to popularize the so-called sliding method of cataract extraction. Many people use this method to great advantage, but it is not always applicable. The tumbling technic when perfected would appear to be safer and less subject to vitreous loss in the younger group, and the sliding method in the older group. The erisophake delivery has become popular recently, and numerous erisophakes have been devised. One of the simplest and best, when properly used, is the Bell erisophake. It seems to be the most useful in cases of hypermature cataracts where a grasp of the lens capsule with the forceps cannot be made. The motor driven erisophake is complicated and cumbersome, and offers no real advantage over the simpler erisophake. The proper relation of the ratio of traction to pressure at the limbus remains a difficult problem, but it is likely that a ratio of four to one pressure to traction, whether with the erisophake or capsule forceps, will secure a greater number of intracapsular extractions. If a bridle suture has been used, it is helpful to relax it during the actual lens extraction. This will reduce pressure on the globe. If undue pressure still remains

on the globe, some operators like to remove the speculum at this point.

The closure of the eye follows, and here can be broadly identified two general types of operators, one who works to get the eye closed in the greatest possible speed, the other who does a more leisurely closure. The first group apparently operate on the premise that in case the vitreous should be lost, it is much better to lose a drop than a greater amount. More recently a belief has arisen that it is vitreous loss itself, rather than the amount lost, which causes the postoperative complications. However, to most of us a "bead" of vitreous still looks like a bucketful, and to me, the smaller the bucket the better. The principal problem found appears to be vitreous incarcerated in the section. The time-honored practice of trimming the vitreous with De Wacker scissors is ineffective because it only cuts the vitreous flush with the surface and leaves it incarcerated in the wound, but I know of no better way to get rid of it. A careful painstaking toilet is indicated, to attempt to restore the integrity of the eye, even at the risk of more vitreous. Air injection has been found useful to force the vitreous backward from the anterior chamber behind the pupil, although this must be done carefully. Use of air in all routine cataract extractions is not indicated or necessary, and perhaps is best saved for cases with vitreous loss. Another procedure that has proved to be of great value in cases of vitreous loss, has been that of sphincterotomy of the iris at 6 o'clock. This may result in further vitreous loss, but it will prevent an updrawn pupil later. It probably also helps to prevent that type of aphakic glaucoma due to adherence of the iris to the vitreous face.

There remains only to close the conjunctival flap, if one is used, instill the drops of choice (I like to use pilocarpine 1 per cent drops and Eserine 1 per cent ointment), and close the lid. The manner of lid closure assumes some importance, since the seventh nerve is blocked, and the lid must be kept closed for some hours. The lid suture seems to be losing in popularity to the wet cotton

Barraquier type of splint. The disadvantages of the lid suture are:

1. Slightly painful procedure to add to the patient's anxiety.
2. Suture may get in way during extraction.
3. Any skin suture under tension is subject to staphylococci infection of its tract.
4. If improperly placed may invert lid border.
5. Danger of entanglement in bandage at dressing.
6. Nuisance of removal.

The wet splint dressing has none of these disadvantages. Its principal one is that it must be moistened to remove it, and this may wash contaminated matter back into the conjunctival sac.

Postoperative care has undergone changes in the past several decades. One of the most striking is early ambulation, instituted by Oschner in general surgery. Gone are the sandbags to the head and the full week in bed with bilateral patching. Many patients now leave the operating room with one eye and a pillow, and are allowed out of bed in twenty-four hours, by some who say that their postoperative course is smoother and complications have not been increased. However, I have not yet become quite so radical, and have not seen the need to become so. A number of recent drugs have helped to make the postoperative course less hazardous, especially the antibiotics. Now anti-nausea drugs such as Dramamine and Thorazine are effective in controlling postoperative nausea and vomiting. Occasionally local use of a steroid hormone is indicated. The use of Diamox for flat chambers has been disappointing.

Among the numerous postoperative complications there have been some changes in methods of treatment. It is becoming more common to do a surgical excision of an iris prolapse earlier with subsequent wound repair than formerly. Flat anterior chambers have probably become less common since appositional sutures and earlier operative procedures are undertaken in an effort to restore the chamber. The principal one is a search of the wound with closure of leaks, but air injection has its advocates. Delayed

emptying of the anterior chamber with choroidal detachment seems to have become less common. However, I have never seen an anterior chamber that did not reform within two weeks, with or without sutures. An excellent concept of its cause was given by Villaseca last year. He felt this type flat chamber was due to a vitreous herniation through the pupil. He advises against the routine indiscriminate use of atropine postoperatively, as this seems to promote this condition. I have advocated this for years since doing the intra-capsular cataract extraction. Certainly in this type procedure, no atropine, or very little, should be necessary. I feel that this idea is a hold-over from the extra-capsular days.

One special type cataract extraction introduced recently and worthy of mention, is the acrylic lens implant of Ridley. It is a revolutionary procedure, and more time must elapse before it can be properly evaluated. However, in a small series of cases by Ridley, he achieved a visual result of 20/30, or better, in only 50 per cent of the cases. The general statistics show that more than 85 per cent of all cataract cases done today by the usual procedure achieve 20/30, or better, vision. The Ridley implant procedure is of special value in young traumatic cataract cases, and this operation will be of still greater value if suitable methods of dealing with the often present postoperative uveitis can be found. Doctors Reese and Hamdi, of the Wills Eye Hospital, have been pioneers of this operation in this country, and they feel that it offers great possibilities in selected cases.

There have been certain changes and revaluation in the surgery of congenital cataracts. Chandler in 1951, presented a useful criteria of indications for surgery. It should be remembered that in only 50 per cent of the operated cases is vision of 20/200 or better achieved. So the prognosis should be guarded, and the children who already have better than 20/200 vision, perhaps are best left unoperated.

Surgery of the subluxated lens has always been a difficult problem to handle. There have been four general approaches to this surgery.

1. Grasping with forceps or erisophake. This is often hazardous.

2. Insertion of diathermy needle.

3. Snellen loop or vectis. Usually productive of some vitreous loss, depending on the skill and luck of the operator.

4. Use of a support under the lens with external pressure below. This method with the use of a Smith spatula has been highly recommended by Vail.

However, any method used is dangerous, and should be done with a questionable prognosis. In consideration of results of surgery, Kirby found a 5 per cent failure in a large series, these being cases with vision less than 20/200. He believed that 1 to 2 per cent of these cases were preventable, and the rest had associated pathology. Aphakic glaucoma is responsible for many of these preventable failures. Post in 1953 considered that vitreous loss is responsible for 37 per cent of the cases of glaucoma, and hyphemia was second, with 14 per cent. Both of these complications are to a large part preventable. Bullous keratitis from contact of the vitreous against the cornea is rather rare, but when it does occur, a severe visual loss results. Leahey has suggested a good procedure for treating this condition, but my one experience with this procedure was a failure.

The surgery of a one-eyed patient following previous cataract surgery, should prove no more difficult than that of a two-eyed patient, but it often is a severe hazard to patient and surgeon alike. The cause of the loss of the eye should be learned, and steps taken to prevent a recurrence. Most of the eyes lost fall into three groups:

1. Operative complications.
2. Secondary glaucoma.
3. Severe subsequent trauma.

As can be seen, the first two groups are primary in the realm of improper preparation, sedation, or operative manipulations. One type case that responds poorly to surgery of the second eye, is that group that lost the first eye through corneal dystrophy. It is likely to occur in the second eye.

Cataract surgery, as it is done today, is perhaps more difficult than it used to be,



making greater demands on the skill of the operator, and the precision of his instruments, but the end results, certainly with the average operator, are more often satisfying than they were previously. The modern operator is greatly aided by his greater knowledge, better selection of anesthetic and analgesic agent, use of antibiotic drugs,

akinesia procedures, and more rational post-operative care. However, results of some of the real ophthalmic surgeons in the early part of the century still compare favorably with those of the best surgeons today, which is living proof that the chief reason for good visual results is dexterity and ability of the surgeon.

## Neonatal Mortality and Prematurity In Colorado\*

John A. Lichty, M.D.

DENVER

*This three-year study by hospital of birth discusses a problem of vital importance to all of the states in the Rocky Mountain region.*

INFANT mortality rate is generally recognized to be one of the best single indices of a given community's health status, and in this respect Colorado's rating has been consistently poorer than the national average for the past fifteen years (Table 1). Since approximately two-thirds of all infant deaths occur in the first month of life<sup>1,2</sup>, the neonatal period, neonatal mortality has been receiving increasing attention. Further, if one studies the possible factors which may be involved in neonatal deaths, one finds that about 70 per cent of these deaths in Colorado were in premature infants, those with birth weights of 5½ pounds or less. A comparable value found in a special study for the United States in 1950 is 64 per cent<sup>3</sup>. For these reasons the Colorado State Department of Health has made a three-year study of these two related problems.

A comparison of the neonatal death rate for Colorado with the national average is shown in Table 1 and Chart A. These indicate the persistent unfavorable position of

Colorado even though there has been a gradual reduction in newborn deaths per thousand live births for both of the groups represented. In comparing the Colorado and the U. S. value in Table 1, one is impressed with the importance of neonatal mortality in the total infant mortality.

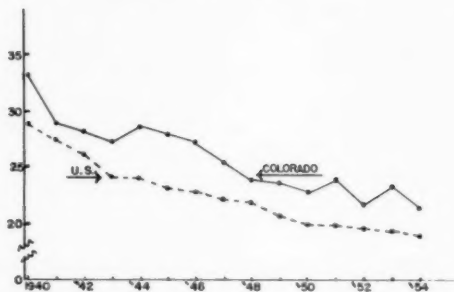
Table 1  
INFANT AND NEONATAL MORTALITY  
(Deaths under age one year and one month,  
respectively, per 1,000 live births)  
U. S. and Colorado

Year	Infant		Neonatal	
	U. S.	Colo.	U. S.	Colo.
1940	47.0	59.5	28.8	33.0
1945	38.3	51.3	24.3	32.6
1946	33.8	40.6	24.0	28.0
1947	32.2	37.5	22.8	25.5
1948	32.0	38.4	22.2	24.3
1949	31.3	34.9	21.4	24.2
1950	29.2	34.2	20.5	23.4
1951	28.4	33.3	20.0	24.1
1952	28.4	32.3	19.8	21.8
1953	27.8	32.9	19.6	23.6
1954	26.8	31.1	19.2	21.4

Sources: U. S.—Recent publications of National Office of Vital Statistics; Colorado—State Department of Public Health rate computations from annual vital statistics tabulations of the Records and Statistics Section.

\*From the Colorado State Department of Public Health and the University of Colorado School of Medicine. The author wishes to express his appreciation for the information and helpful assistance from the Records and Statistics, Research and Reports, and Hospital Standards Sections of the Colorado State Health Department.

Chart A.  
NEONATAL (NEWBORN) MORTALITY RATES, COLORADO AND U.S.  
(DEATHS UNDER AGE ONE MONTH PER 1,000 LIVE BIRTHS)  
COLORADO STATE HEALTH DEPARTMENT



This study involves the neonatal death rate and the factor of prematurity (immaturity) related to individual Colorado hospitals, because information obtained from birth certificates shows that approximately 95 per cent of the reported live births in Colorado occur in hospitals. The record of neonatal deaths was taken from an analysis of death certificates filed in the Records and Statistics Section of the State Health Department. Information about birth weight of these infants came from the corresponding birth certificates. This "matching" of death and birth certificate was started in 1950 to gain the maximum amount of medical information regarding the infant deaths in this state. The numbers of live births in each of the hospitals included in this study were obtained from the "Administrator's Guide" issue of Hospitals, the official journal of the American Hospital Association. The three-year period, 1952 through 1954, was used to obtain a more representative "score" for each hospital, particularly those community hospitals having rather wide fluctuations in annual neonatal mortality. This is largely due to the small number of live births in these hospitals each year. The twelve-month periods used in the two sources of information do not coincide exactly, but over a three-year period it seems unlikely that serious inaccuracies are present. Obviously the reliability of all the data used in this study depends on the accuracy of reporting to the Colorado State Department of Public Health and the American Hospital Association.

Table 2 shows the neonatal death rate by hospital of birth for fifty-nine Colorado hospitals for which reports were available for this three-year period. It also shows the per cent of these deaths which occurred in premature (immature) infants. The hospitals are designated by a code number rather than name. Some of the neonatal deaths assigned to hospital of birth may not be due to, or even associated with, any factors related to pregnancy, delivery or hospital care of the infant; i.e., a baby might have been discharged from the hospital of birth in perfect health and then been killed in the first month of life by an accident. However, health department records<sup>2</sup> show that 90 per cent of all reported neonatal deaths in Colorado occurred in the first week of life. Bundesen<sup>1</sup> refers to these as "Hedomadal Deaths." This suggests that in most cases of neonatal death an inquiry regarding problems of prenatal and perinatal care might reveal factors which could have been considered preventable.

The uniformly high percentage of prematures in these studies emphasizes the importance of this handicap in the survival of newborns. One is not justified, however, in assuming that this factor was the sole, or even the chief, cause of the deaths.

An individual detailed report of the data in this study will be sent to each hospital on written request. It is hoped that the hospital will hold a staff meeting to discuss the findings, verify the data by comparison with its own records, and then take appropriate steps to increase the number of its live born babies surviving the first month of life. This should apply to all the Colorado hospitals because the neonatal mortality of the state can be most rapidly reduced if all hospitals and their medical staffs make a sincere effort to accomplish this. Surely a goal of getting Colorado's newborn death rate down at least to that of the national average over the next few years, is not an impractical objective in medical and hospital care. The Colorado State Department of Public Health and the Colorado Hospital Association will be glad to supply additional information on this subject to any hospital, or send consultants in Hospital Administra-

**Table 2**  
**COLORADO NEONATAL DEATHS AND PREMATUREITY BY HOSPITAL OF BIRTH**  
**(Three Year Period, 1952-1954, inclusive)**

Hospital Code No.	Total No. Live Births	Neonatal Deaths		Neonatal Deaths in Prematures	
		Total No. Deaths	Rate per 1,000 Live Births	Total No. Deaths	% of Neonatal Deaths
1	1,397	30	21.5	19	63
2	1,096	17	15.5	13	76
3	149	6	40.2	4	67
4	674	10	14.8	6	60
5	489	10	20.4	6	60
6	552	5	9.0	3	60
7	330	6	18.2	5	83
8	805	7	8.7	2	29
9	537	12	22.3	8	67
10	3,349	88	26.3	72	82
11	2,379	106	44.6	92	87
12	5,808	101	17.4	76	75
13	5,435	118	21.7	74	63
14	4,150	75	18.1	47	63
15	3,326	55	16.5	46	84
16	5,930	122	20.6	83	68
17	5,251	105	20.0	75	71
18	6,816	115	16.9	83	72
19	8,993	166	18.5	129	78
20	604	2	3.2	0	0
21	3,172	67	21.1	48	72
22	2,128	46	21.6	31	67
23	1,546	33	21.3	25	76
24	1,979	48	24.3	35	73
25	593	13	21.9	8	62
26	214	4	18.7	2	50
27	537	11	20.5	7	64
28	360	8	22.2	4	50
29	395	10	25.3	4	40
30	812	27	33.3	25	93
31	406	16	39.5	9	56
32	1,311	35	26.7	14	40
33	2,195	37	16.9	20	54
34	695	9	12.9	6	67
35	1,562	45	28.8	29	65
36	820	25	30.5	15	60
37	951	13	13.7	10	77
38	209	8	38.3	4	50
39	2,276	61	26.8	49	80
40	478	7	14.6	4	57
41	1,058	22	20.8	17	77
42	723	21	29.0	15	71
43	1,822	31	17.0	27	87
44	541	12	22.2	7	58
45	95	3	31.6	2	67
46	273	6	22.0	6	100
47	121	3	24.8	3	100
48	1,478	29	19.6	15	52
49	3,028	52	17.2	35	67
50	3,131	84	26.8	52	62
51	2,212	52	23.5	33	64
52	182	8	44.0	4	50
53	481	20	41.6	13	65
54	709	17	24.0	12	71
55	242	4	16.5	2	50
56	439	10	22.8	7	70
57	326	14	42.9	9	64
58	3,442	61	17.7	45	74
59	377	9	23.9	7	78
Totals	101,399	2,137	21.1	1,503	72

for MARCH, 1957

tion and Maternal and Child Health to assist in making plans to achieve this goal.

#### REFERENCES

<sup>1</sup>Infant Mortality Statistics, U. S. 1951. Vital Statistics—Special Reports 38 #13, Sept. '54, National Office of Vital Statistics.

<sup>2</sup>Selected Statistical Summaries on Population and Natality and Mortality. Five-Year Review, State,

1950-1954; and County Tables, 1954, Colorado Residents, Colorado State Department of Public Health, Research and Reports Service.

<sup>3</sup>"Births and Neonatal Deaths, by Birth Weight: Reporting Areas 1950 and 1951," Vital Statistics—Special Reports, National Summaries, Vol. 38, No. 18, September 9, 1955, Table 3, p. 356. (National Office of Vital Statistics).

<sup>4</sup>Bundesen, H. N.: Effective Reduction of Needless Hebdomadal Deaths in Hospitals, J.A.M.A. 157, pp. 1384-1399, 1955.

## Diagnostic and Therapeutic Uses Of Cobalt 60\*

Robert W. Lackey, M.D.

DENVER

*The new tool of the radiologist, radioactive cobalt, is described with emphasis on its versatility.*

**C**OBALT 60, next to radioactive iodine and phosphorus, is proving to be one of the most useful of the radioactive isotopes in medicine today. In therapy it approaches the value of the isotope radium and surpasses it in some respects. Cobalt 60 is made in the atomic pile by bombarding natural cobalt 59 with neutrons. The cobalt 59 is placed into aluminum cylinders in graphite blocks and inserted into the atomic furnace where it is subjected to an intense concentration of neutrons. Some of these millions of projectiles make direct hits on the cobalt 59 atom nuclei and actually enter the nuclei producing unstable radioactive cobalt 60. The new nucleus of 60 particles, thus formed, flies apart giving off a very soft beta ray and two high energy gamma rays ending up as nickel 60.

#### Diagnostic Use

In medical diagnosis  $\text{Co}^{60}$  is used as a tracer element. It behaves chemically in the body like natural cobalt but can be traced through with Geiger counters because of its radioactivity. Biosynthesis of

vitamin  $\text{B}_{12}$  using  $\text{Co}^{60}$  in the molecule makes possible a simple and accurate test for pernicious anemia. Since the utilization of  $\text{B}_{12}$  is dependent on the presence of intrinsic factor one merely has to follow the radioactive  $\text{B}_{12}$  through the body to establish the diagnosis of PA. We use the test as set up by Shilling. The patient is given a small and harmless amount of radioactive Vitamin  $\text{B}_{12}$  to drink. Liver storage is blocked by giving a dose of normal vitamin  $\text{B}_{12}$  I.M., and a 24-hour urine specimen obtained. In normal patients one will discover by virtue of the radioactivity affecting Geiger counters, 8 to 48 per cent of the cobalt in the urine in 24 hours unless there is some disturbance in the small bowel motility. In PA cases the elimination is less than 7 per cent. The diagnosis is established by repeating the test giving intrinsic factor with the  $\text{B}_{12}$ . In true PA cases the recovery rate will then be raised to a normal level.

#### Therapeutic Uses

Radioactive cobalt has found wide application as an agent in radiation therapy. Its beta radiation is easily filtered off, thus providing us with a source of pure high energy gamma radiation. Since it is a metal

\*Presented at the 86th Annual Meeting of the Colorado State Medical Society, Estes Park, September, 1956. From the Department of Radiology, Presbyterian Hospital, Denver.

rather than a powder like radium, it can be prepared in almost any shape, size and strength of radioactivity required. Its chief disadvantage is its short half life of 5.3 years. This means that the radiologist must continue to adjust his treatment factors to account for radioactive decay. He also must eventually replace his source since the treatment time will become too long to be practical. Some of the forms of cobalt 60 we have for use at the present time are:

1. Cobalt in steel and glass capsules with different applicators.
2. Needles of various lengths.
3. Cobalt in nylon threads with shield for use in OR.
4. Bead—of special very high level activity.

The cobalt in glass or steel capsules is used in the treatment of carcinoma of the cervix or tumors elsewhere as indicated. Because of the adaptability of the cobalt, the radiotherapist can more readily individualize the treatment to suit the patient and the tumor. Cobalt in steel capsules is packed into the uterine cavity in cases of carcinoma of the fundus as a form of pre-operative radiation. We feel that this procedure followed by hysterectomy in four to six weeks offers the patient the highest possible cure rate in these cases. Here again the value of cobalt is its amenability to being cut and bent in various shapes and sizes. The uterus is filled with many small capsules. There is no intrinsic value of cobalt radiation over any other gamma or x-ray radiation.

The radioactive cobalt may be loaded into stainless steel needles or nylon threads of any length in any desired pattern using inactive aluminum spacers to vary dosage. It has been our experience with these sources that there is less tissue reaction and slough than when using radium, while achieving the same regression of the tumor. This enables us to place a relatively high dose of radiation into the tumor while sparing the normal tissue as much as possible.

In treatment of carcinoma of the vagina, especially in recurrent and inoperable cases, cobalt 60 is used when indicated. It offers a method of obtaining a higher dose of radiation than would be otherwise possible.

Carcinoma metastatic to submandibular glands or the cervical lymph chain may be treated under certain circumstances with radioactive cobalt needles. Here the interstitial needles are used in combination with the x-ray therapy.

Carcinoma of the bladder can be treated with cobalt 60 in nylon threads. Because of their flexibility the threads lend themselves readily to suturing into tumor tissue especially in sites where it would be difficult to place straight needles.

Inoperable tumor masses in the abdomen may have cobalt in threads sutured into them at the time of surgery and removed later. This enables us to achieve a high dose of radiation in the tumor while sparing normal tissue as much as possible.

Recently we have been conducting a project at Presbyterian Hospital, Denver, using a high intensity cobalt 60 source in a compact form. The value of hypophysectomy and adrenalectomy in the treatment of generalized metastasis from carcinoma of the breast is well known. Approximately 50 per cent of those who survive surgery are benefited by this procedure. The surgical procedure, however, is a formidable one. Total elimination of pituitary function with external x-ray radiation is nearly impossible without damage to surrounding normal tissue because of the high dosage required. We now are attempting radiation ablation of the pituitary by placing the radioactive cobalt 60 bead in the pituitary gland through a transphenoidal approach. The surgery is being done by Dr. James Chesson through the nose under local anesthesia with very little trauma to the patient. Far advanced cancer patients in the terminal stages of the disease seem to tolerate the procedure surprisingly well. The endocrine aspects of this program are under the management of Dr. Robert Berris. This project is still in the early stages and not far enough advanced to report any results at this time. We hope that this simpler procedure will offer the patients all the benefits of adrenalectomy and more. It can be accomplished on patients more gravely ill.

Cobalt 60 is currently becoming popular as a source of external radiation in teletherapy units. Here it serves as a splendid



supplement to supervoltage x-ray therapy. Cobalt makes it possible to rotate the radiation source around the patient with the center of the tumor at the center of the rotation. This rotation therapy spares nor-

mal tissue and makes it easy to achieve required dose at the tumor site. Such a unit is currently being installed by the Gates Foundation at Presbyterian Hospital, Denver.

## Surgical Management Of Breast Carcinoma\*

Mordant E. Peck, M.D.

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*Procrastination in discovery and treatment of breast cancer is often the physician's fault. This article describes the behavior and spread of cancer cells; it outlines the requirements of adequate examination.*

THE SUBJECT of carcinoma of the breast is too big to discuss in twenty minutes or even in twenty hours. Therefore, let us assume the following premises. First, you are aware that at present there is only one justifiable method for treatment of an operable and proven cancer of the breast. Namely, a radical mastectomy of the Halsted type. The question of super-radical resections, including the internal mammary nodes, has not been definitely proved as yet to add anything to the salvage rate, and until the initial studies on a series of cases now under investigation in two or three large breast clinics in this country have been completed, the operation cannot be recommended for routine therapy. Second, I assume you agree with the premise that palliative methods for therapy are non-specific, and that they are understood to consist of (1) radiation therapy and (2) hormonal therapy. No specific plan of management can be definitely or justifiably outlined for these measures, but with regard to the latter type of therapy, oophorectomy, perhaps at the time of mastectomy in the pre-menopausal patient, and as an initial step after recurrence in both pre- and post-menopausal patients, subsequently followed by adrenalectomy if the condition is still uncontrolled,

is an acceptable approach. The problem of hormone administration to these patients is in such a state of intellectual conflict at the present time that it would be difficult to formulate any specific plan of therapy. It is well to remember that no one has ever indicated that hormones per se have anything to do with the development of cancer of the breast. However, there is no question but what hormones do influence the growth of the lesions and the metabolism of the specific cellular structures that are involved. Third, I assume the premise that we all hope to derive at this time something of practical value to our own management of patients. Therefore, you are not interested in technical considerations. Certainly, if you are not familiar now with the surgical technics of a Halsted mastectomy, you should not attempt to do the operation.

On the other hand, the physio-pathology of this disease is of practical value to you from a clinical standpoint, and a discussion of this factor seems most pertinent. The question frequently arises as to whether an individual in general practice in a small outlying community should undertake the local excision of breast tumors if he feels that he is incapable of performing a radical mastectomy. This question is a significant one for it is now generally agreed that a

\*Given at the 3rd Annual St. Joseph's Hospital Clinics, Denver, August 3, 1956.

time interval between the initial diagnosis of an excised breast nodule and the radical therapy of a malignant lesion is a most significant one. Since an approximate two-thirds of all breast tumors in women prove to be benign, it does not seem feasible to anticipate that the doctor in general practice should refer to the surgeon in his area every breast tumor for local excision. The problem which arises is how can this local family doctor arrive at a rational conclusion as to whether a breast lesion will prove to be benign or malignant before surgical extirpation. I propose that it is altogether feasible, on the basis of the physio-pathology of breast cancer, to anticipate a high degree of accuracy in diagnosis as a result of physical examination. When such lesions have the characteristics of malignancy, they should then be referred initially to a surgeon with the anticipation of probable radical therapy. The remaining tumors with physical characteristics suggestive of a benign neoplasm can be handled locally. If an error in the impression gained by physical examination is proved by biopsy, immediate consultation with the doctor qualified best to do a radical extirpation is indicated. Under any circumstances, no breast lesion should ever be removed without pathological study of that lesion by a qualified pathologist. It may seem ridiculous to emphasize this point to you, but sad instances of such failure have occurred among practicing physicians in Colorado within the past year.

Certainly, there is no longer a question of curability in cancer of the breast. This is a curable type of malignancy. The problem now is relative to the attainment of this end and involves factors inherent in the early recognition of breast cancer and in the procedure of management by any individual doctor. In spite of much education, the factors in the recognition and the awareness of the curability of breast cancer are still significant problems. This is particularly true since carcinoma of the breast is now first in frequency as a cause of death among all cancers. Unfortunately, however, it has been estimated that one-quarter or more of all women with breast tumors receive procrastinating advice from

their physicians. Our purpose in this paper is to crystallize the knowledge concerning the growth and metastases of these tumors, and to correlate it with an accepted rationale for routine physical examinations. It is hoped that by this means, fewer physicians will procrastinate in the utilization of the only positive method known for diagnosis of breast malignancy, namely, biopsy.

#### Age Ratio vs. Age Incidence

Carcinoma of the breast is a disease of mature years. The incidence has been found without question to be associated with the increase in age. Since we have been able to prolong the life expectancy to 67 years from a previous level of 48 years (in 1900), it must be anticipated that the incidence of carcinoma of the breast now is increasing and will continue to increase in the future. In this regard, it is well to emphasize that the age incidence as demonstrated in the accompanying graph (Fig. 1) steadily increases, in contrast to the old curve so frequently displayed which is based on age distribution. The latter concept is fallacious, for it implies a decreasing incidence in the old age groups. It can be seen from the age incidence curve that this is not at all the case. This particular curve is based upon the number of people living at any one age as related to those of that age with malignancy of the breast. It is readily apparent that the number of such people living at any given age steadily decreases.

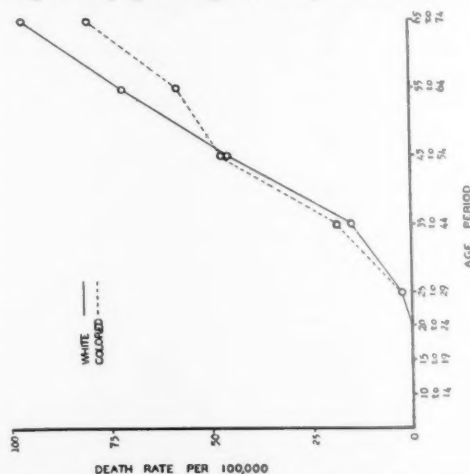


Fig. 1. Cancer of the breast. Averages of annual death rates/100,000 females by age and color. (Metropolitan Life Insurance Co.)

### Heredity and Cancer of the Breast

It is important to know something of the inter-relationship of heredity if one is to understand the physio-pathology of breast tumors, since the observations of various individuals working with experimental animals tends to be of some significance. Largely, through the efforts of Dr. Clarence Little, strains of mice have been developed in which there is a high incidence or a low incidence of mammary tumors. However, it became apparent that there was some extra chromosomal influence instrumental in determining whether mammary cancer would appear in the first outcross generation. In 1946, Little was able to prove that the tendency to have mammary cancer was not Mendelian. By foster nursing studies, it was possible to show that a factor was transmitted in the mammary milk of the high incidence strain of mice to the offspring. Bittner investigated this factor still further and was able to isolate the mammary tumor milk agent, which had all the properties of an infectious agent or virus, and which was transmitted in the milk of the high incidence strain of rats. It has also been shown that certain hormonal factors undoubtedly played a part in the development of tumor growth. Virgin mice of the high incidence strain have a lower incidence of mammary tumors than breeders from the same strain. Studies of this observation led to the conclusion that there is a genetic control of this hormonal mechanism and it has been shown that the same genes do not affect the inherited susceptibility for mammary cancer and the inherited hormonal influence. Whether these factors have any direct bearing when applied to a consideration of human beings is somewhat dubious because of uncontrolled cross-breeding in man. Nevertheless, it has been reported that the frequency of malignancy in relatives of patients with breast tumors as compared with a controlled population is some fifteen times as great, even though the frequency of this association in the relatives of individuals with breast tumors is between two and three per cent.

#### Is Location Significant?

An understanding of the location of tumors within the breast, the nature of

their growth and local spread, and the manner of their regional extension is basic physio-pathology and should also be reviewed. The location of malignant tumors within the breast has been stated to be of significance in diagnosis (Fig. 2). It is generally felt that carcinomas of the breast occur with greater frequency in the upper outer quadrant. However, this is not true in a strict sense. Malignant parenchymal tumors will be located in the upper outer quadrant in about 44 per cent of the instances, but this is relative to other locations for similar tumors. Solitary cysts will occur in the upper outer quadrant in about 49 per cent of the instances when related to the location of all such tumors within the breast. On the other hand, solitary adenofibroma will occur in the upper outer quadrant in 30 per cent of instances. The same general relationship holds true for the relative location of solitary tumors whether benign or malignant in character in other quadrants of the breast. It is, therefore, misleading to attach any significance to the location of the tumor in the breast by depending upon the quadrant in which the tumor is observed. On the other hand, tumors beneath the areola are approximately two times as likely to be malignant as benign. In general, it is best to establish the nature of any breast tumor by other criteria and not to be misled by any factor relative to location.

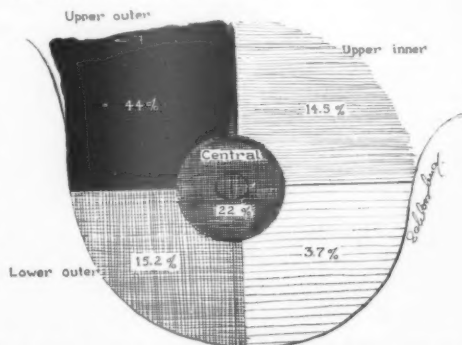


Fig. 2.\* Distribution of 1000 infiltrating mammary cancers. The more darkly shaded the area, the more common the site.

#### Tumor Growth and its Effects

Cancer of the breast in its earliest mani-

\*From Geschickter, C. F. *Diseases of the Breast*. J. B. Lippincott Co. 1943. (p. 406)

festations is almost never seen. However, it is felt that these tumors arise primarily in the periductal system and the terminal tubules. Here they begin their growth with the proliferation of ducts formed by tumor cells. As the tumor grows, it may invade or surround the periductal lymphatics. On occasion, the tumor may invade through the wall of the more proximal ducts without. It may be that in the early stages, a cancer will be multicentric, originating in more than one location among the branching ductal systems. The further growth of these tumors is so characteristic that it is possible to utilize such knowledge in any clinical examination for the diagnosis of a malignant tumor. After the initial growth of the neoplastic process is under way, the tumor will invade the adjacent mammary tissue by permeating connective tissue barriers. Among the most significant of these barriers are the so-called Cooper's ligaments, which extend from the dermal layer of the skin to the fascia of the pectoralis major (Fig. 3). These ligaments give support to the breast and take part in the compartmentation of the breast into lobules which contain the branching ductal system. A shortening of these ligaments occurs in response to their invasion by the neoplastic process (Fig. 4). The result of this shortening manifests itself by dimpling of the skin over the site of a malignant tumor nodule. As the tumor grows, its expansion may manifest changes in the skin characterized by still greater shortening of these ligaments, and by erythema and inflammation. In such instances, the dimpling of the skin is much more obvious than in the early stages when it must be brought out by the methods of examination (Fig. 5).

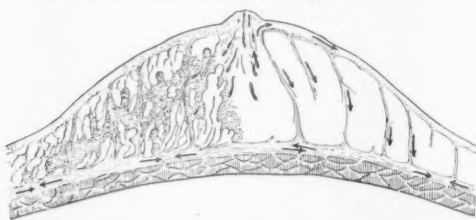


Fig. 379. A diagrammatic section of the parous Mammary Gland. The dotted area represents the epithelial portion. The clear lobulated masses represent fat. The fibrous strands—ligaments of Cooper—unite the subcutaneous tissue to the deep fascia. In the portion on the right, which is left unfinished, the arrows show the natural course of the lymph-stream—upward along the ducts, peripherally in the subcutaneous tissues, downward, among the fibrous strands, to the vessels lying upon the pectoral muscles.

Fig. 3. (From Homans, John *Textbook of Surgery*, 5th Ed. Charles C. Thomas, 1940, p. 795)

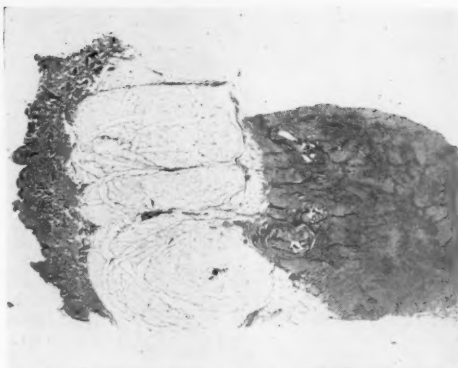


Fig. 4. Microphotograph of a slide showing the effect of an adenocarcinoma on Cooper's Ligaments. Note the shortening and associated skin retraction, due to replacement and invasion by a deeply seated medullary adenocarcinoma.



Fig. 5. Advanced carcinoma causing diffuse contraction of the supporting structures of the breast. Smaller lesions give more localized signs of retraction phenomenon.

Concomitant with the growth of the tumor and its extension along the lymphatic and tissue spaces, emboli of tumor tissues may break off within lymphatic or vascular channels and resulting secondary regional invasion take place. In this regard, it should be noted that flow of lymph is from the breast parenchyma toward the areola, thence, along the superficial lymphatics beneath the skin to the regional nodes (Fig. 3). On occasion, the tumor may so extensively invade the lymphatic channels as to cause blockage of lymph drainage. Lymphadema of the breast will then occur and the characteristic orange peel appearance will result (Fig. 6). In such instances, the tumor must necessarily be far advanced.

It is also a characteristic of malignant neoplasms to stimulate the growth and proliferation of the blood supply to the tumor area. In certain instances, the veins over

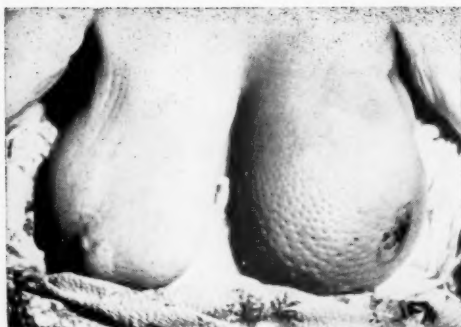


Fig. 6. Advanced carcinoma with lymphedema of the breast, showing the classical "orange peel" appearance, which is due to the presence of Cooper's Ligaments.

the breast become considerably more prominent (Fig. 7). In other instances, this particular phenomena can be brought out by the use of infra-red light, for such channels may not be clinically visible under ordinary illumination. There are still other instances in which the abnormal blood supply is not observed superficially, but is present only in the deeper structures near the site of tumor growth. In this regard, it is possible for newly formed vascular spaces to be penetrated by the neoplastic process and early direct vascular extension occur. Under such circumstances, the tumor cells permeate into the newly formed vascular spaces and are carried by the intercostal veins to the vertebral veins. These latter veins are valveless and tumor cells may thereby reach the venous radicals supplying the vertebral bodies, or they may be carried to the brain. Generally, however, the lymphatic system serves as the major source of dissemination for metastases from the neoplastic growth.



Fig. 7. Venous engorgement, visible in the skin of the breast and associated with the presence of adenocarcinoma.

#### Nature of Lymphatic Spread.

There have been described seven possible pathways by which lymphatic spread may occur (Fig. 8). The first or auxiliary route

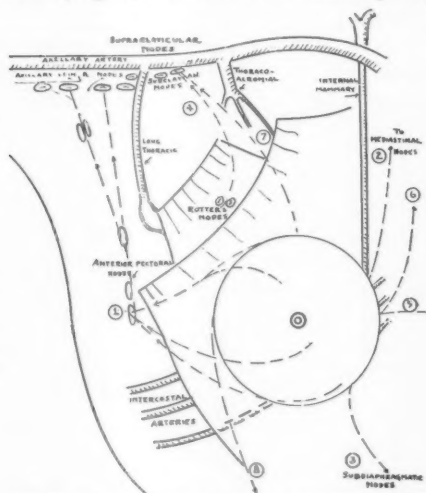


Fig. 8. The blood supply and lymphatic drainage of the breast. In the diagram the lymphatic pathways are: (1) Axillary route, to anterior pectoral nodes (low), central axillary nodes (mid), to subclavian nodes (high or apex); (2) Internal mammary route along the internal mammary artery to mediastinal nodes; (3) Paramammary route of Gerota, through the abdominal lymphatics to the subdiaphragmatic nodes; (4) Grossman's path from lymphatics beneath the breast perforating the pectoral major muscle to Rotter's nodes, thence to subclavian nodes; (5) Cross mammary pathway via superficial lymphatics to the opposite breast; (6) Subclavian pathway to the mediastinal nodes; (7) Subclavian pathway direct to the subclavian nodes; (8) Lower superficial pathway to the lymphatics of the abdominal network.

Fig. 8. (From Geschickter, C. F. *Diseases of the Breast* J. B. Lippincott Co. 1943. p. 39)

drains primarily the upper outer quadrant of the breast. It is also the major drainage route for the lower outer quadrant. In fact, this is the pathway for the major lymphatic drainage of the entire breast. Most of the lymph drainage is primarily through the anterior or pectoral nodes which lie along the lateral border of the pectoralis major just beneath the anterior lip of the latissimus dorsi. A second major pathway is via the internal mammary route, which drains largely from the medial quadrants of the breast. The lymphatics of this path penetrate the anterior chest wall along with the perforating branches of the arteries and veins associated with the internal mammary system. There are on the average six internal mammary nodes, but the ramifications are extensive, for the internal mammary drainage is intimately involved with the lymph nodes and lymph drainage from the extensive mediastinal plexus. These nodes are characteristically poor filters for cancer cells, and in view of the extensive



mediastinal communications, internal mammary node resection as an en-bloc addition for extending the procedure of radical mastectomy does not, on a theoretical basis, make good sense. A critical analysis of the meager reports of studies now under way would tend to support this impression. A third route, the so-called paramammary "route of Gerota" drains through the abdominal lymph nodes to the sub-diaphragmatic nodes and receives lymph primarily from the lower quadrants of the breast. A fourth pathway known as "Groszman's pathway" drains from the upper quadrants, directly through the pectoralis major and minor to the subpectoral, or so-called "Rotter's nodes," and thence to the subclavian nodes. There is also a substernal pathway in which the lymphatic channels are thought to penetrate directly to the mediastinal nodes. The sixth pathway is known as the cross mammary pathway and is the result of spread by the superficial lymphatics to the opposite breast. It has been estimated that the opposite breast is involved in some 10 to 15 per cent of all cases of breast carcinoma. Finally, extension may occur over the lower superficial pathway to the lymphatics that follow along the epigastric vessels. Extension via any of these pathways leads to involvement of the lungs, liver, bone and brain; the lungs and liver being the major sites of involvement as a result of lymphatic permeation.

#### The Procedure for Breast Examination.

The process of clinical examination for a malignant lesion must take into consideration the local examination of the breast, and the possibility of early or late regional extension. Recognition must also be made of the fact that the breast undergoes cyclic changes in the pre-menopausal patient. This consists of engorgement and parenchymal hypertrophy. The degree to which such alterations take place varies from one patient to another. An individual with rather marked "cystic mastitis" may have nodularities in her breast which will completely disappear seven to ten days after the onset of menstruation. Hence, where there is doubt as to the nature of a lesion, one is justified in re-examining the patient one

week after the onset of the succeeding menstrual period.

The clinical examination itself should be a careful routine procedure based upon the principles that have been outlined. Similar routines have been developed for neurological examinations, pelvic examinations and for other examinations referable to specific organs or systems. The breast should be no exception and such a routine is demonstrated in the accompanying drawings (Figs. 9 and 10).

PHYSICAL EXAMINATION of the BREAST  
Demonstration of Postural Maneuvers

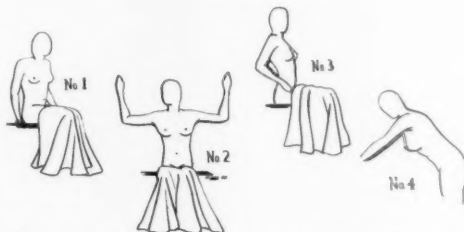


Fig. 9. For explanation of postural maneuvers refer to text.

PHYSICAL EXAMINATION  
of the BREAST (continued)

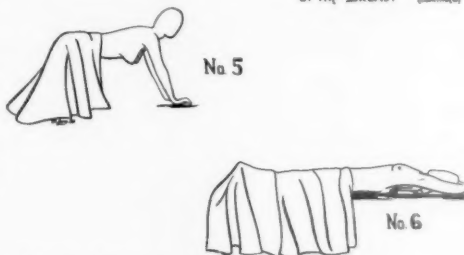


Fig. 10. See text.

Emphasis must be placed on the initial necessity for examining both breasts concomitantly. No examination of the breasts can be made unless both breasts are bared and a comparison of the contour, shape, position and dermal characteristics of the two breasts made. Elevation of the nipple of one breast above that of the other may be a telltale sign of underlying pathology. Such an initial examination should also include observation of the vascular supply in the skin overlying the breast. Any undue venous engorgement of one breast over the other may be of considerable significance. It can be noted that, in all respects, inspection is the primary consideration in exami-

nation of the breast. In many instances, the diagnosis can be made by inspection where no positive mass can be felt by palpation. Again, it is emphasized that such inspection must utilize a knowledge of the physiopathologic characteristics of tumor growth.

Initial inspection can best be performed with the patient sitting in an upright position with both breasts bared. If she is then asked to elevate her arms at right angles the pectoral muscles are brought under tension, the breasts are elevated on the chest wall and growth of the tumor mass may be demonstrated by a deforming effect on the breast contour and in the skin surfaces overlying the tumor. Particularly significant is the dimpling or skin retraction phenomena resulting from the shortening of Cooper's ligaments. This characteristic may be further exaggerated if the patient places her hands on her hips and is asked to throw her shoulders back, or to press her hands against her hips. Such a maneuver brings the pectoral muscles under tension, fixing the breasts taut against the chest wall, and making the shortening of Cooper's ligaments evident by the dimpling in the skin or the abnormal position of the nipple. When the patient leans forward, and the breasts are in a dependent position, the effects of this same process may be further observed—particularly if the tumor lies in the upper quadrants. A tumor in the lower quadrants may be better examined independently if the patient is resting on her hands and knees. By this means, it can be located and the characteristics of its growth discovered, there being total dependency of the breasts.

Only after inspection has been completed should one proceed with the process of palpation. Palpation can best be accomplished if the patient is lying flat on the table with a small pillow under the shoulder of the side to be palpated. If the patient will then place the hand of the side being examined beneath the head, the breast can again be brought taut against the chest wall and any tumor mass is made more easily visible and palpable. Characteristics of such a tumor, namely, size, consistency, shape and contour are noted. The arm may then be brought downward to the side and palpation gently carried out again, since some

tumors can be more easily felt under a relaxed state of pectoral tension.

#### **Examination of Regional Nodes.**

Examination of the axilla is best performed with the patient sitting. The arm is brought downward and, supporting it with one hand, the fingers are placed at the apex of the axilla and brought gradually downward over the lateral chest wall. Such an examination must have the complete cooperation of the patient, since in this instance relaxation of the pectorals is of considerable significance.

Supraclavicular palpation must also be included in the examination and it should be accomplished by two means: one, with the patient's head gently flexed on a pillow so that palpation can be performed from in front, the examiner's hand being brought downward over the anterior triangle; second, with the patient in a sitting position, the examiner standing behind, palpating the supraclavicular region against the surface of the trapezius.

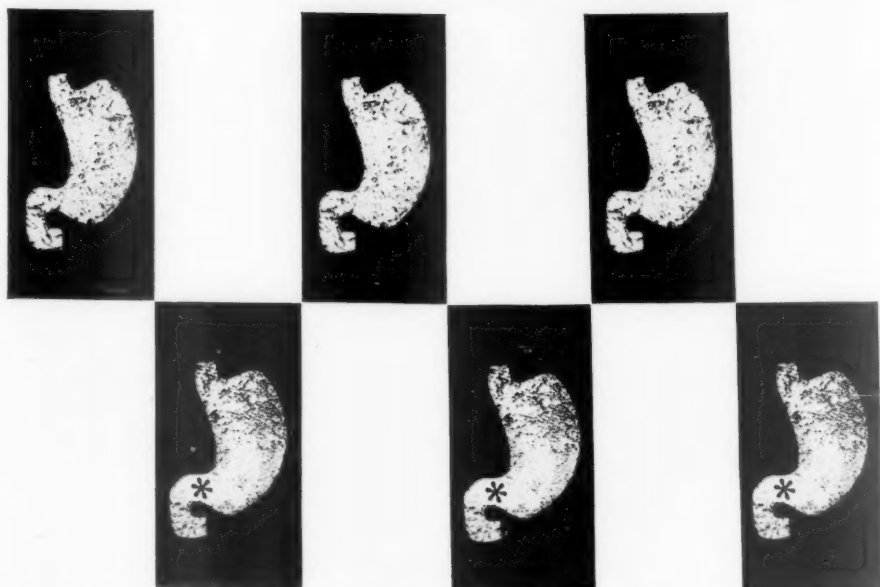
This method of examination, in which inspection is of primary consideration, should facilitate the recognition of a breast tumor, and the nature of its growth.

#### **Summary**

Attention has been paid to the physiopathology of breast tumors, their nature, their growth, and the effects of such growth upon physical diagnosis. We have outlined a routine for physical examination of the breast which is based upon a rationale involving the nature of the growth of breast tumors. I have found that it is well to discuss these factors with the patient during the course of the examination, for under any circumstances, patients who have a tumor in their breast, whether it be benign or malignant, should in the future learn to examine their own breasts carefully with an intelligent understanding of the reasons for such maneuvers.

It is hoped that by utilization of this information, fewer doctors will give procrastinating advice to patients with malignant tumors, and also that adequate therapy will be instituted at the earliest possible moment on a greater number of patients with carcinoma of the breast.

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## Colorado



### PROGRAM PUEBLO SPRING CLINICS

#### TOP O' THE TOWN\*

4200 North Elizabeth Street

Friday, April 5, 1957

#### AFTERNOON SESSION

1:00—Registration, Woman's Auxiliary.

1:30-2:30—Motion Pictures.

Presiding—F. W. Barrows, Jr., M.D.

2:30—Invocation, Rev. Henry H. Baker, Pastor, St. Paul Methodist Church.

Welcoming Address, William N. Baker, M.D., President, Pueblo County Medical Society.

2:45-3:45—"The Management of Intestinal Obstruction," Manuel E. Lichtenstein, M.D.

3:45-4:15—View Exhibits.

4:15-4:45—Questions.

#### EVENING SESSION

7:30—**MIXER-UPPER.**

Saturday, April 6, 1957

#### MORNING SESSION

9:30—Registration, Woman's Auxiliary.

Presiding—Wesley Van Camp, M. D.

10:00-10:45—"Modern Diagnosis and Treatment of Hyperthyroidism," Cyril M. MacBryde, M.D.

10:45-11:15—View Exhibits.

11:15-12:00—"Anatomical Factors of Importance in the Diagnosis and Treatment of Acute Appendicitis," Manuel E. Lichtenstein, M.D.

12:15-2:00—Luncheon and Questions.

Presiding, Samuel B. Potter, M.D.

#### AFTERNOON SESSION

Presiding, Albert McC. Tipple, M.D.

2:00-3:00—"Growth and Sex Development," Cyril M. MacBryde, M.D.

3:00-3:30—View Exhibits.

\*All Scientific meetings and social functions will be held at the Top O' The Town.

ROCKY MOUNTAIN MEDICAL JOURNAL

3:30-4:30—"The Treatment of Disorders of the Biliary Tract," Manuel E. Lichtenstein, M.D.

4:30-5:30—Questions.

#### EVENING SESSION

6:30—Cocktails.

7:30—Banquet—Semi-formal; Gala Entertainment.

Dancing—Music by Dwight Shaw.

### Component Societies

#### ARAPAHOE COUNTY

The Arapahoe County Medical Society held its regular monthly meeting at the Tiffin Restaurant January 29 jointly with the Woman's Auxiliary of the county members.

Drs. George R. Buck, President, Colorado State Medical Society, and Terry J. Gromer, Trustee, along with their wives, were guests at this meeting. Following dinner Drs. Buck and Gromer discussed State Society items of interest to the members.

A program on Civil Defense was presented by Mr. Paul S. Cormier on some of the basic ideas and beliefs behind Civil Defense, with emphasis on evacuation. Mr. Cormier showed a film and distributed informational pamphlets.

### News Briefs

#### CHILDREN'S HOSPITAL SUMMER CLINICS

The Ninth Annual Summer Clinics of the Children's Hospital in Denver, Colorado, will be held June 24, 25, and 26, 1957. Designed for all physicians concerned with the care of children, the course will present recent advances in medical knowledge appropriate to the first few weeks of life, and will emphasize methods for the early recognition of disease, discuss emergency procedures of value, and outline successful programs of therapy.

Guest faculty this year will be Dr. Stewart H. Clifford, Assistant Clinical Professor of Pediatrics, Harvard Medical School; Dr. H. William Clatworthy, Jr., Associate Professor of Pediatric Surgery, Ohio Medical University, and Dr. Edith L. Potter, Professor of Pathology, Department of Obstetrics and Gynecology, the University of Chicago.

Further information can be secured by writing the Chairman, Summer Clinics Committee, Children's Hospital, Denver 18, Colorado.

#### STATE-AIDED COMMUNITY STUDIES OF CHRONIC ILLNESS AND AGING\*

Community understanding of problems and service needs of the chronically ill and the aged

\*Colorado State Department of Public Health, Research and Reports Service, State Office Building, Denver.

for MARCH, 1957

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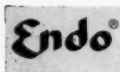


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was increased in four Colorado counties during the past three and one-half years through household canvasses and surveys of nursing homes and other health facilities. The studies were conducted in El Paso, Mesa, Otero, and Weld Counties. As a result of interest created by these studies, a fifth now is in progress in Boulder County.

Although locally developed and directed by volunteer committees, the community studies received general guidance and financial assistance from the W. K. Kellogg Foundation. A summary report on the program which was prepared in December, 1956, for the Foundation recently has been released by the Department. Copies of the report, *Community Views of Chronic Illness and Aging Problems and Needs*, are available from the Division of Hospitals and Disease Control.†

The report summarizes the guidance provided by the Department, describes the nature of the local studies, and indicates the significance of the program for future action by the communities. The differing questionnaires used by the four counties that have completed their household canvasses are reproduced in the appendix. They are preceded by a brief explanation of the statistical sorting and tabulating method used because of its feasibility for volunteer workers. Excerpts from the body of the report follow.

#### State Assistance and Guidance

The Kellogg Foundation grant to the State Department of Public Health provided allotments, spread over three and one-half years, that were sufficient for the salary and traveling expenses of the Director of Community Studies, the salary of his secretary, and about \$4,000 a year during the three years of local program operations for supplemental assistance to the official study committees in the counties. The supplemental assistance included a variety of supplies or equipment; reproduction of reports for the local committees; and financial aid for local employment of a part-time executive secretary or coordinator and for other approved expenses. On their part, the communities furnished a great amount of volunteer service and also space, equipment, and financial contributions under a variety of arrangements.

The State Director of the community studies helped chart the course of the studies as they moved through the community organization, study planning, questionnaire drafting, surveying, information tabulation, analysis, report preparation, and report publication phases. At all stages, however, it was emphasized that the local programs were community enterprises and that responsibility for final decisions and for the nature, progress, and results of the studies rested with the local committees. The state assistance, therefore, consisted not of dictation but of counseling, providing guide materials, and making preliminary but not final plans and recommendations.

†With sub-title "Summary Report on a Three-Year Program of Locally Developed Community Studies in Four Colorado Counties." Prepared in consultation with Joseph E. Cannon, M.D., M.P.H., Director, Division of Hospitals and Disease Control, by Eleanor L. Richie, M.A., Research Consultant. Mimeographed-lithographed, 26 pp., and five-page appendix.

### State-Local Working Pattern

The organizational pattern recommended by the State Director and adopted by the four counties provided for formation of a local committee for the study on problems of the chronically ill and aging. This official committee in each county was sponsored by organizations such as the Chamber of Commerce of the principal city of the county, a council of social agencies or similar body, the county health department, and the board of county commissioners. Nevertheless the new committee was established as a separate, independent entity. It functioned through its own steering and executive committees and their subcommittees on publicity, facilities surveys, household canvasses, reports and recommendations, or other special assignments.

The State Director worked with the subcommittees and their task groups as well as with the steering and executive committees and local executive secretaries or coordinators. The subcommittees responsible for nursing homes or other facilities studies included experienced professional persons such as nurses, physicians, and health facilities operators in addition to representative lay persons. The large numbers of volunteers who gathered the information in the household surveys were provided orientation, with the assistance of the State Director. The marginal punch cards by which the information was tabulated were supplied through the State Director after local decision as to the form and contents. Coding instructions, tabulation procedures, and statistical work sheets also were drafted in consultation with the State Director.

### Personalized Understanding

Both the household surveys and the studies of nursing homes and other health and medical facilities afforded close, realistic views of the interests, problems, and needs of the chronically ill and the aged among each community's own population. The study programs, therefore, provided vivid local illustrations of generally known basic factors and relationships, such as:

The principal diagnostic causes of chronic illness and handicaps, and the variations in the different age groups.

The advanced age of most of the patients in the nursing homes; and the need for clearer distinction between nursing homes and boarding homes for the aged, with suitable standards for each category.

The possibility of reversing or at least arresting the course of some of the chronic diseases, and of reducing disability and handicaps through rehabilitative care of various kinds.

The potentialities of visiting nurse services, homemaker services, housekeeper services, and home medical care programs as means to continued normal community living for the handicapped and the aged; and as ways of reducing hospital, nursing home, and clinic loads.

The importance of integrating home, nursing home, general hospital, chronic disease facility, and outpatient clinic services in order to achieve continuity of care for the individual as appropriate to his changing needs.

The overlapping of health and medical care problems pertaining to the indigent with those related to the medically needy but not otherwise indigent.

The need to study hospital and medical care financing methods to meet the increasing need for long-term care; such as insurance coverage, cooperative service plans of professional groups, and aid from public funds.

for MARCH, 1957

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The joint responsibility and interest of public health departments, public welfare departments, voluntary health and welfare associations, and private medical and health professions in preventive, therapeutic, and rehabilitative care of the chronically ill and the aged.

The need to study types of housing best suited to the aged and the handicapped, and ways of financing such housing.

The zest for interesting activities, recreation, and usefulness that characterizes many of the aged and the handicapped, including those in nursing homes, hospitals, and other institutions.

#### Community Action

A full-scale viewing of the multiple and interrelated problems of the chronically ill and the aged was afforded the steering committees, the subcommittees, the many volunteer canvassers in the household surveys, and the smaller groups who made nursing home and other health facilities studies. This experience created heartfelt interest in meeting service needs. The aroused interest immediately led to some new community service plans to implement recommendations stemming from the studies, and gave promise of additional and more comprehensive improvements in the future.

The summary report of the three and one-half year program by the State Department of Public Health mentions some new services that were started in the four surveyed counties soon after the studies were completed. The kinds of recommendations made in the reports by the local committees also are reviewed in the sections on the individual county studies.

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## Wyoming



### News Briefs

#### DR. HELLEWELL ATTENDS RURAL HEALTH MEETING

On January 22-23 in Logan, Utah, a five state Rural Health Conference was held at the Utah State Agricultural College. The meeting was also attended by Dr. F. S. Crockett, Vice President of the American Medical Association and Chairman of the AMA's Council on Rural Health. Dr. Joseph S. Hellewell, of Evanston, President of the Wyoming State Medical Society, pointed out to the group that the entire State of Wyoming was a rural health problem and that all of our State Medical Society committees were working on this basis. Representatives at the meeting included those from Colorado, Montana, New Mexico, Utah and Wyoming.

#### PHYSICIANS DELIVERING 100 OR MORE INFANTS

The Wyoming Department of Public Health has released its annual list of Wyoming physicians delivering 100 or more live babies in the preceding year. The figures are for the calendar year 1956, and the list includes 19 physicians.

1. Young, Clarke M.	Casper	268
2. Bowden, Robert H.	Casper	225
3. Sullivan, Bernard J.	Laramie	224
4. Travis, Bane T.	Cheyenne	202
5. Shwen, Ralph O.	Cheyenne	181
6. Harrison, G. Myron	Rock Springs	138
7. Lipman, J. I.	F. E. Warren AFB	138
8. Schleyer, Otis	Cheyenne	137
9. McNamara, Edward W.	Rawlins	136
10. Engleman, A. A.	Worland	136
11. Wellington, C. J.	F. E. Warren AFB	131
12. Koford, Glenn W.	Cheyenne	127
13. Halsey, Guy M.	Rawlins	126
14. Roberts, Kenneth N.	Casper	118
15. Holman, Theodore L.	Casper	115
16. Moles, M. R.	F. E. Warren AFB	109
17. Ashbaugh, Ralph D.	Riverton	104
18. Wild, John J.	Sheridan	104
19. Giovale, Silvio J.	Cheyenne	100

### Obituary

#### DR. P. M. MCCRANN DIES

Dr. Patryck McCrann of Rock Springs died Monday, February 4, 1957. Dr. McCrann was born December 5, 1891, in Omaha, Nebraska—graduated from Creighton University School of Medicine in 1918. He was licensed in Wyoming in April, 1920. The letter of application to the State Board of Medical Examiners was written from Cumberland, Wyoming. He practiced in Kemmerer and moved to Rock Springs in 1930 where he resided until the time of his death. He served as Sweetwater County Health Officer from January, 1943, until the time of his death.

He was associated with the Medical Group of Rock Springs and was one of its founders in 1939.

He is survived by his wife and one son.

for MARCH, 1957

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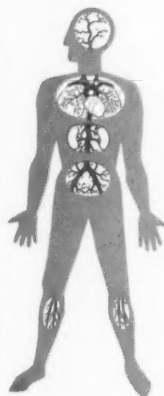
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## New Mexico



### News Briefs


#### NEW MEXICO'S ANNUAL MEETING

The Santa Fe County Medical Society, under the General Convention Chairmanship of Dr. R. C. Derbyshire, has prepared an outstanding program for the Seventy-Fifth Annual Meeting, May 15-17, 1957.

The Scientific Committee, under the Chairmanship of Dr. Carol Smith, has selected seven scientific speakers, with known abilities, and include the following: Lauren Ackerman, M.D., Professor of Pathology, Washington University, St. Louis; Philip Hodes, M.D., Professor of Radiology, University of Pennsylvania; William P. Longmire, M.D.; Professor of Surgery, University of California at Los Angeles; I. Arthur Mirsky, M.D., Director of Division of Clinical Science, University of Pittsburgh; Isadore Snapper, M. D., Director of Medical Research, Beth-El Hospital, State University of New York at Brooklyn; Theodore C. Panos, M.D., Professor of Pediatrics, University of Texas; and Robert J. Willson, M. D., Professor of Obstetrics and Gynecology, Temple University, Philadelphia, Pa.

The business session of the Society will be held prior to the beginning of the Scientific pro-


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ROCKY MOUNTAIN MEDICAL JOURNAL



gram on Wednesday afternoon, May 15, 1957. The Council will meet either Monday night, May 13, or Tuesday morning, May 14. The House of Delegates will meet Tuesday afternoon and Wednesday morning, May 13 and 14.

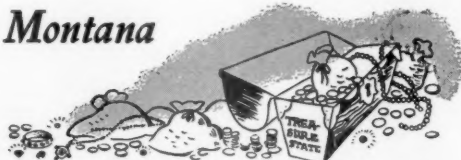
This year for the first time the House of Delegates will use the reference committee arrangements similar to the AMA House and most state medical societies. Although final details have not been worked out as yet, the first session of the House will probably meet Tuesday afternoon, May 14. All new business introduced at this session will be referred to the reference committee, who will hold a hearing on this business Tuesday evening. The House will assemble Wednesday morning, May 15, to receive the reference committee reports and vote on same. The annual election of officers will be held at this session.

Included in the round of social functions will be a smoker for the men on Wednesday evening, May 15, and a dinner dance on Tuesday, May 16. The Auxiliary to the Santa Fe County Medical Society will entertain the visiting wives at several functions. The Auxiliary will also hold its annual meeting concurrently with the Medical Society.

We anticipate that rooms will be hard to find unless you make your reservations early. You will receive mail soon informing you of the hotels and motels and an application for reserving your room. Dr. Richard Angle, c/o Santa Fe Chamber of Commerce, is Chairman of the Hotels Committee.

Final programs will be mailed to you during April.

## Montana



### MONTANA MEDICAL ASSOCIATION Interim Session — March 29-30 HELENA

SCIENTIFIC MEETINGS will be held in the Western Life Building all day Friday, March 29.

BUSINESS MEETINGS of the House of Delegates will be held in the Placer Hotel, Saturday, March 30.

## Obituary

### ALBERT J. BRASSETT

Albert J. Brassett, M.D., Kalispell, Montana, died at his home on December 27, 1956. Doctor Brassett retired in 1954 upon the completion of fifty years of active practice. He was born in Trondheim, Norway, and at the age of 14 came to the United States. Doctor Brassett graduated from the Minnesota College of Physicians and Surgeons in 1906 and in 1909 moved to Kalispell for the practice of medicine. He was a member of this Association, the American Medical Association and the American College of Surgeons.

for MARCH, 1957

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## Utah



### News Briefs

A postgraduate course for physicians in the use of the electrocardiograph, one of the most important instruments for the diagnosis of heart disease, was conducted recently at Salt Lake General Hospital under the auspices of the University of Utah College of Medicine and the American College of Physicians.

Guest faculty members were Franklin D. Johnson, professor of medicine, University of Michigan Medical School; Richard Langendorf, Department of Internal Medicine, Michael Reese Hospital, Chicago, and Junior A. Abildskow, instructor in medicine, State University of New York, Syracuse.

Utah Medical College faculty members who participated were Hans H. Hecht, associate professor of medicine; L. E. Viko, professor of cardiology; Ramon L. Lange, instructor in medicine, and Ernest L. Wilkinson, clinical instructor in medicine.

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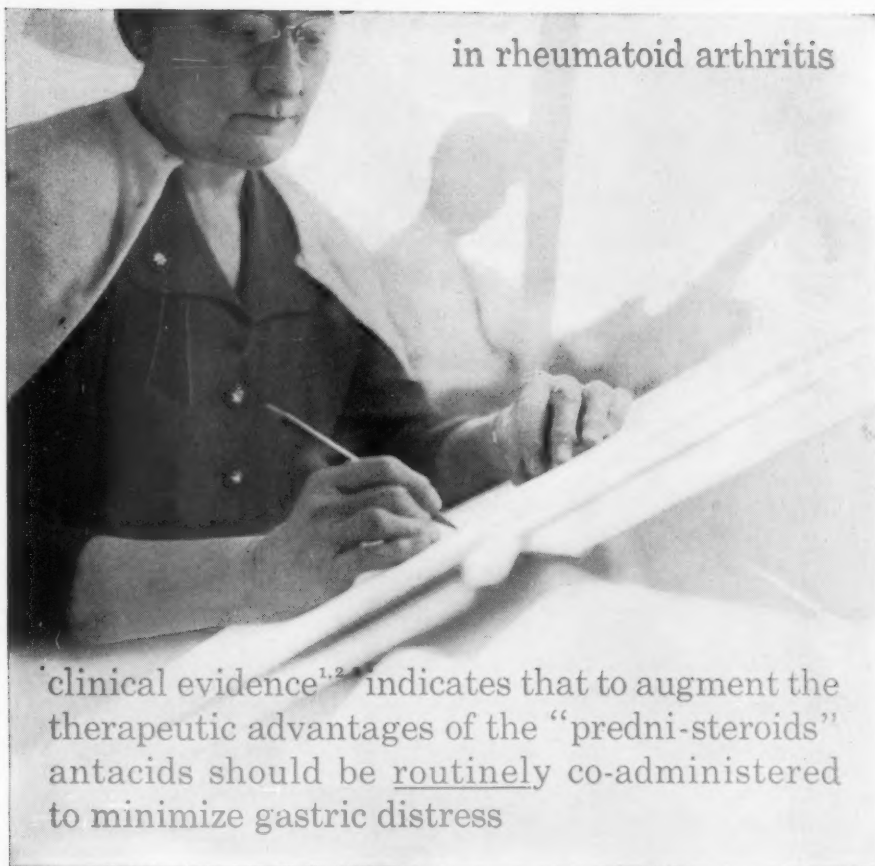
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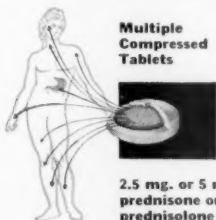


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References: 1. Boland, E. W., J.A.M.A. 160:613 (February 25) 1956. 2. Margolis, H. M. et al., J.A.M.A. 158:454 (June 11) 1955. 3. Bollet, A. J. et al., J.A.M.A. 158:459 (June 11) 1955.

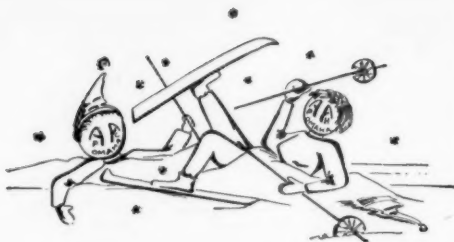
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ducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 16 through 25, 1957. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I examinations will be notified of their eligibility for the Part II examinations as soon as possible.

Office of the Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

### MEDICAL PROGRAM COMBINES WITH SOUTH DAKOTA PHEASANT HUNTING

The Hunter's Fall Medical Meeting sponsored by the South Dakota State Medical Association will be held at Mitchell, South Dakota, during the first five days of pheasant hunting season in October, 1957.

The program is set up for out-of-state doctors and will feature morning scientific sessions, afternoon hunting and evening scientific and social sessions.

The registration fee is set at \$100.00, which will cover the out-of-state hunter's license, hunting guides, reserved hunting areas, several social events, and the scientific program. Motel and hotel space has been reserved, but registration is limited to the available housing.

The affair is not stag, but wives who hunt must pay the full registration fee and those not hunting, three-fourths of it. (This is necessitated by the tight housing situation.)

For details and reservations write to Mr. John C. Foster, Executive Secretary, South Dakota Medical Association, 300 First National Bank Bldg., Sioux Falls, South Dakota.

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The World Medical Association has become a strong factor in protecting and promoting the professional interests of the medical profession and the cause of world peace. Now in its ninth year, WMA is a federation of the most representative national medical association in each of fifty-two nations. These member organizations represent more than 700,000 physicians. The American Medical Association is a leading member of The World Medical Association. Doctors of medicine the world over cherish the same basic ideals of conduct and the same devotion to the welfare of mankind. The World Medical Association is cultivating the common purposes of the profession. This growing community of interest is a source of strength to the physicians in every land.

Already, by solid accomplishments, the World Medical Association has earned the right to call itself "the international voice of organized medicine." Thanks largely to the United States Committee and similar supporting committees of physicians in other leading nations, WMA has a well-tried constitutional structure, a small but efficient secretariat, and a tri-lingual journal whose world-wide influence and value to the profession is rapidly growing. The permanent office of the secretariat—which serves both the Association and the United States Committee—is located in the United States. The membership of the United States Committee has been growing slowly but steadily. In 1955, the Committee reached its first important milestone of growth: a membership of 5,000 American physicians. Even with this modest membership representing scarcely three per cent of American medi-



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cine, important achievements have been registered, many of which would have been impossible if the American pharmaceutical and related industries had not consistently matched the financial support given the United States Committee by its physician members.

Last year, 176 members of the United States Committee attended the Ninth General Assembly of the World Medical Association in Vienna. This privilege is available to members of national supporting committees. There is unique inspiration, personal enjoyment and intellectual stimulus in meeting our colleagues from many lands, and in helping to formulate programs that may have incalculable benefits for the profession, and for the welfare of the world.

The World Medical Association assists traveling physicians by providing them with introductions to colleagues in other countries, by making speaking engagements for them abroad, by acquainting them with visiting doctors from other countries, and, of course, by sending the "World Medical Journal" to members of all national supporting committees. In 1953, the World Medical Association sponsored the First World Conference on Medical Education, held in London. Representatives from many nations

have reported concrete benefits from this epochal meeting in terms of better standards and practices in medical education in their countries. A Second World Conference on Medical Education is now being planned for 1959, to be held in the United States. Two other World Medical Association accomplishments that have brought great credit to our profession and strengthened its solidarity throughout the world were the promulgation in 1948 of the Declaration of Geneva, comprising a modern re-statement of the Hippocratic Oath, and the adoption in 1949 of an International Code of Medical Ethics.

The activities of WMA in the field of social security are of particular interest to American physicians. They have revealed boldly and unmistakably the physician's inherent and universal need for freedom from third-party interference with the practice of medicine. Such activities should not only fortify but inspire the efforts of American medicine to solve our socio-economic problems without resort to governmental subsidy or control. On the international stage, the World Medical Association has endeavored to counter efforts of the International Social Security Association and the International Labour Organization to promote state medicine under social security programs. The World

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Medical Association has earned the respect of the International Labour Organization for its defense of the interests of medicine against the International Labour Organization Convention for Medical Socialization in 1952. Now the World Medical Association is attempting to wrest from the International Labour Organization the recognized world leadership in the field of occupational medicine. The World Medical Association has engaged in efforts to protect medical research; to safeguard the National Pharmacopoeias and the rights of individuals discovering new drugs and agents to name them.

The World Medical Association has served the profession by representing it in relation to the World Health Organization—the official health agency of the United Nations. In the attempt by WHO and other agencies to draft an International Code of Medical Law, WMA has insisted that such a code be based upon ethical principles acceptable to the profession.

For all these activities, and for many more which demand our attention, additional funds are needed. Each new member not only contributes his nominal membership dues, but, more vitally, he lends his name and influence to the program of the WMA and of its United States Committee. America's world leadership chal-

lenges America's physicians to make the United States Committee a truly impressive and representative body of American physicians. Every individual physician in the U. S. A. is eligible for membership in the United States Committee. Annual membership dues are \$10.00. The dues for Patron Members are \$100.00 or more. Many of our members regularly make contributions to the U. S. Committee, in addition to their annual dues. All such contributions to the United States Committee of the World Medical Association are tax deductible. As the international voice of organized medicine, the World Medical Association is speaking for you. It is seeking to promote and protect your interests. You are urgently invited to help these efforts along, by joining the United States Committee, and participating in its work.

#### TB NOTES

There is much evidence that the immunity resulting from primary infection in childhood is bought at a great price. The risks that it entails are not small, since tuberculosis infections that remain latent during the early years of life may flare up in the form of overt disease after puberty.—René Dubos, *Am. Rev. Tuber.*, August, 1956.

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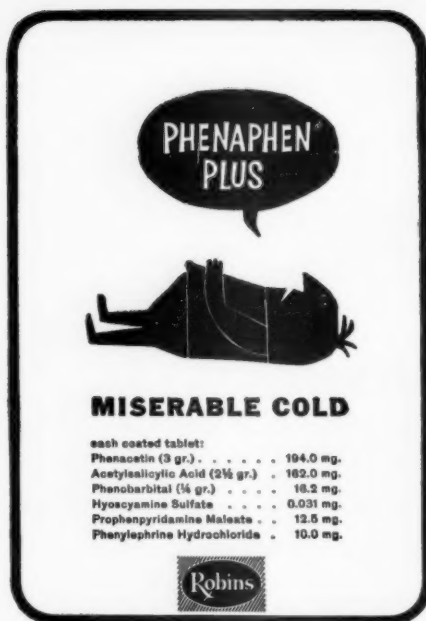
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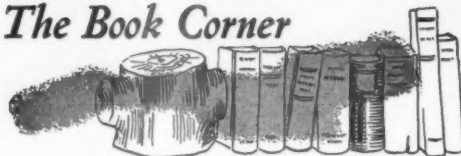
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## The Book Corner



### New Books Received

New books received are acknowledged in this section. From these, selections will be made for reviews in the interests of the readers. Books here listed will be available for lending from the Denver Medical Library soon after publication.

**Services for Children With Vision and Eye Problems; a Guide for Public Health Personnel:** Prepared jointly by the Committee on Child Health of the American Public Health Association and the National Society for the Prevention of Blindness. New York, American Public Health Association, Inc., 1956.

**Services for Children With Hearing Impairment; a Guide for Public Health Personnel:** Prepared by the Committee on Child Health of the American Public Health Association. New York, American Public Health Association, Inc., 1956.

**Handbook of Pediatric Medical Emergencies:** By Adolph G. DeSanctis, M.D. 2nd edition. St. Louis, C. V. Mosby Co., 1956. Price: \$6.25.

**Ciba Foundation Symposium on Bone Structure and Metabolism.** Boston, Little, Brown, 1956. Price: \$8.00.

(Continued on page 281)

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(Continued from page 278)

**Ciba Foundation Symposium on Paper Electrophoreses.** Boston, Little, Brown, 1956. Price: \$6.75.

**The Happy Life of a Doctor:** By Roger I. Lee, M.D. Boston, Little, Brown, 1956. Price: \$4.00.

**Principles of Clinical Electrocardiography:** By Mervin J. Goldman, M.D. Los Altos, California, Lange Medical Publications, 1956. Price: \$4.50.

**The Visual Fields:** By David C. Harrington, A.B., M.D., F.A.C.P. St. Louis, C. V. Mosby Co., 1956. Price: \$16.00.

**Surgery of World War II: Orthopedic Surgery in the European Theater of Operations.** U. S. Army, Medical Department. Washington, Government Printing Office, 1956.

**Surgery in World War II: Vol. 2. General Surgery.** U. S. Army, Medical Department. Washington, Government Printing Office, 1955.

**The Philosophy of Medicine:** By William R. Laird. Charleston, W. Va., Education Foundation, Inc. 1956.

**The Physician-Writer's Book:** By Richard M. Hewitt, A.M., M.D. Phila., W. B. Saunders Co., 1957. Price: \$9.00.

**Pediatric Cardiology:** By Alexander S. Nadas, M.D., F.A.A.P. Phila., W. B. Saunders Co., 1957. Price: \$12.00.

**Clinical Use of Radioisotopes:** By William H. Bierwales, M.D., Philip C. Johnson, M.D., and Arthur J. Solari, B.S., M.S. Phila., W. B. Saunders Co., 1957. Price: \$11.50.

## Book Reviews

**Pelvimetry:** By Herbert Thoms, M.D. New York, Paul B. Hoeber, 1956. 120 p. Price: \$5.00.

This is an exceptionally useful monograph by one who has done a tremendous amount of work on the subject for many years. The practical and useful portion of the book comprises only a small portion of the whole. Much of the book is taken up with theoretical considerations concerning the mechanisms of development of pelvic variations. In this regard the reviewer has missed a discussion of at least one essential element, namely, heredity. The only other criticism to offer would be the failure to stress (1) the importance of a prenatal roentgen study as including the pelvic passenger, and (2) that problems of delivery are those of relative sizes and shapes of passenger and passage. In the second chapter, Dr. Thoms quotes a statement made by him twenty years ago concerning external pelvimetry as being erroneous and illogical. He also states that Dr. Greenhill in his next edition of his book, will delete a discussion of external measurements. These are interesting statements in view of the demand by the National Accreditation Committee for the recording of such useless data.

JOHN R. EVANS, M.D.

**Dermatology:** By Donald W. Pillsbury, M.D., Walter E. Shelley, M.D., Ph.D., and Albert Kilgman, M.D., Ph.D. Philadelphia, W. B. Saunders Co., 1956. 1,331 p. Price: \$20.00.

The authors of this book need no introduction to dermatologists. Each of them is well known for his work and contributions in the field of

(Continued on page 284)

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LEONARD A. LEWIS, M.D.

**Surgery for General Practice:** By Victor Richards, M.D., Professor of Surgery and Chairman of the Department of Surgery, Stanford University School of Medicine. St. Louis, C. V. Mosby Co., 1956. Price: \$17.50.

A nicely bound volume of 933 pages divided into forty-three chapters, this book should constitute a memorable addition to the office library of the average general practitioner. The wide variety of subjects discussed, ranging from the excellent chapter on local anesthesia to an extensive and very practical section on orthopedic problems in general, makes the book fairly well inclusive of most surgical problems the general practitioner may be called upon to treat. Urological, gynecological and central nervous system problems are also well discussed. The same applies to certain surgical problems of a more specialized nature such as the treatment of burns, plastic surgery and sympathetic nervous system and peripheral vascular disease. Not so well discussed are the topics pertaining to abdominal surgery in general which, nevertheless, constitute a significant percentage of the generalist's surgical practice. An important omission in the head and neck section is the detailed pre- and post-operative treatment of the various thyroid and parathyroid gland derangements. Particularly sketchy is the chapter on hemorrhage and shock despite the recent great advances in the understanding of the underlying physiological problems here. An

adequate discussion on fluid balance, pre- and post-operative care of the surgical patient in general and metabolic reaction to surgery is missing.

Finally, a significant omission throughout the text is the lack of any bibliography from which to easily expand the subject matter. Without this, some of the statements contained appear somewhat dogmatic and give the text an oversimplified "cook-book" flavor which is deplorable in medicine.

The text in general is highly readable and should afford the busy practitioner a quick source of reference material in his office, some aspects of which will necessitate early expansion by reference to periodicals or even more complete textbooks. The illustrations are generally good and pertinent. A good feature is the attempt to illustrate the undesirable in surgical treatment along with the desirable.

The book falls short by comparison to more extensive textbooks such as Christopher's due to the significant omissions in surgical treatment—not surgical technic.

This, in my opinion, relegates its maximum use to a source of quick, easily obtainable consultation or as an outline for office procedures, which indeed appears to be its intended purpose.

G. E. ARAGON, M.D.

**Care of the Long-Term Patient:** By The Commission on Chronic Illness. Published for the Commonwealth Fund by Harvard University Press, 1956. 606 pp. Price: \$8.50.

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of a projected series of reports made by the Commission on Chronic Illness, a study group working under the auspices of medical, hospital and public health associations and others who are faced with the problems that come under the study. This study was prepared for publication under the guidance of a committee which includes editors and heads of medical school departments and state commissions for various aspects of public welfare.

The study attempts to answer the following questions: Who are the long-term patients, and what are their disease states? Where are they to be found? What are their medical and social needs? What are the measures for financing such care? What are the health personnel needs and what are the resources and programs available for augmenting these? What are the physical aspects of care in large vs. small communities including hospital facilities and ancillary personnel?

The answers to these questions are those that are satisfactory primarily to large institutions. Home care is of the kind requiring visiting nurses and public health groups, while the aspects of institutional care discussed are those that are rarely found in any unit smaller than large teaching institutions with their staffs of social workers, physiotherapists and other such personnel. Neither the problems of small communities nor those met in practice in the more western states, with the necessity for using their limited hospital facilities for more acute care, are adequately covered.

This volume is not a medical text for the care of the long-term patient, but is a committee report. As such it is factual in context and style. For one desiring them, the report contains the answers to the questions posed. But like many projects and studies, while striving for completion, the scope is by no means comprehensive, and, like the nature of the investigation, neither are the answers.

L. H. PINKERS, M.D.

**Dictionary of Poisons:** By Ibert Mellan and Eleanor Mellan. New York, Philosophical Library, 1956. 150 pp. Price: \$4.75.

The Dictionary of Poisons, by Ibert and Eleanor Mellan is somewhat of a literary anomaly. It is well written, small, concise and easily read. The subject matter is significant and fairly complete, yet very few of those who would need its information will use it. This book is written for those who have had no medical training and limits itself to measures that can be used by the general public in the event of accidental poisoning. The types of poisons covered are a large number that conceivably could be found in the home or in the usual places of business or industry. Since the citizenry rarely thinks of poison until tragedy strikes, and then rapidly forgets again, the book will more likely be found in fire departments, first aid stations, and others of their kind than in the home.

Each section about a specific substance ends with the statement "call a physician." Hence the book's value to the medical profession, other than as an educational instrument for the public, is one of an historical nature, with many items of such interest scattered in the discussions of various substances. Easily used, this

book is specific and practical as a "first aid" manual.

L. H. PINKERS, M.D.

**Organized Home Medical Care in New York City:** A study of nineteen programs by the Hospital Council of Greater New York. Cambridge, published for the Commonwealth Fund by Harvard University Press. 538 pp. Price: \$8.00.

Organized Home Medical Care in New York City is quite similar in scope to a study by the Commission on Chronic Illness entitled Care of the Long-term Patient. In the present study the problems are discussed on a local level and nineteen programs designed to meet these problems are discussed and evaluated.

The basic aims of the home care program are to provide the necessary medical attention, relieve the in-patient hospital load, and to better somewhat the living conditions of the patients. The type of home care is designed to enable the medically indigent to remain in familiar surroundings and yet receive the attention that is necessary. The illnesses most frequently encountered are of the destructive, debilitating, or chronic types. The majority of the patients are beyond the fourth decade of life, many in the sixth and seventh decades. The conditions under which the various agencies attempt to provide this care are horrifying.

A physician who has had his training in non-charitable institutions has no comprehension of the living conditions described. Even one who has worked in a charity hospital finds it difficult to understand how people can exist in such circumstances. The fact that the various governmental agencies, hospitals, medical schools and religious organizations are able to begin to meet these aims is attested to by the statistical figures compiled in this volume.

This is an excellent statistical study which shows what can be successfully undertaken, and at the same time provides the reader with a vivid account of conditions as they all too often exist in large city slum areas.

L. H. PINKERS, M.D.

**Poliomyelitis:** By W. Ritchie Russell, London, England, Edward Arnold Publishers, Ltd. 2d ed., 1956. 147 pp. Price: \$3.00.

One of the main purposes for publishing this monograph is that the existing arrangements in Britain and also in other countries are inadequate to meet the requirements of either major epidemics or sharp local outbreaks of poliomyelitis. It was the feeling of Dr. Russell that a general review might contribute to an understanding of what is needed to improve matters. The book deals primarily with the clinical management of poliomyelitis rather than reviewing recent virus and epidemiologic research.

It is the opinion of the reviewer that this monograph by W. Ritchie Russell is a contribution, long needed, to the diagnosis and clinical treatment of this malady, particularly since respiratory paralysis, a cause of fatality in most cases of poliomyelitis, is adequately if not completely considered.

There are chapters on infectivity, quarantine, epidemiology, and prevention. These chapters will be of particular interest to those interested in public health aspects. However, the information contained in these chapters has been available for many years.

Chapters entitled Clinical Features, Physical Examination, and Management and Treatment are well drawn. For example, the dangers encountered in nursing the comatose patient in the supine position are pointed out.

The prone position is recommended with equal vigor. Postural drainage for clearance of the airway is also emphasized. Dr. Russell points out that the extent of neurologic examination permitted is limited in patients who are developing paralyses and in those already critically ill. This generalization, long accepted, does not dull by repetition in this monograph since in polio it is especially applicable. It is remarked that severe hysteria in the adult with poliomyelitis may mask very serious developments and complications.

It is noted that since there is now available many specific therapeutic agents for various intracranial lesions, particularly infections, the former attitude of preference for a general rather than a specific diagnosis is no longer justified.

In the chapter on "Factors Influencing Cell Vulnerability," the author reiterates the recommendation that operations on the nose and throat during an epidemic season are not warranted. Interestingly the author also recommends rest periods during each day for children in an epidemic area. He also suggests that athletic events in polio seasons should be discouraged.

A considerable proportion of the monograph is devoted to the diagnosis and treatment of respiratory paralysis and insufficiency. There are sections evaluating new types of British and Scandinavian respirators. There is also a chapter on positive pressure respiration with a concise review of the pertinent points relating to tracheotomy. Glossopharyngeal breathing is briefly described.

Atelectasis is frequently mentioned in the monograph but the description is bland. The reviewer believes that lung change in those patients succumbing to poliomyelitis is in need of physiologic and pathologic investigation and description. In the closing paragraph the author remarks that lessons learned in the study of poliomyelitis are of great importance in the study of other disease, particularly neurologic lesions.

GEORGE W. HOLT, M.D.

**Practical Pediatric Dermatology:** By Morris Leider, M.D., Associate Professor of Dermatology and Syphilology, New York University Post-Graduate School, St. Louis, C. V. Mosby Co., 1956. 433 p. Price: \$10.50.

A great deal of work and effort has resulted in a condensed volume which primarily purveys practical but also some theoretical information concerning diseases of the skin encountered in the pediatric patient. This book should be valuable to medical students and members of all branches of medicine, including dermatologists.

In the early chapters, Dr. Leider briefly reviews the basic science aspects of dermatology applicable to infants and children, including the embryology, histology, biochemistry, physiology, and dermatohistopathology. Primary and secondary lesions, regional diagnosis, diagnostic instruments or equipment, laboratory tests and procedures of value in diagnosis are considered next. Thirdly, the principles of therapy including specific therapeutic regimes for the common dermatoses, and a formulary are presented.

Eleven chapters are devoted to the various

dermatoses according to categories or classification, namely (1) dermatoses due to physical agents, (2) infectious or pyogenic dermatoses, (3) dermatoses due to superficial fungi, (4) dermatologic diseases due to viruses, (5) dermatoses due to parasites, (6) dermatoses based on allergic mechanisms, (7) cutaneous diseases of mycobacterial origin (tuberculosis and leprosy), diseases due to the deep or systemic fungi and the miscellaneous granulomata, (8) cutaneous manifestations of systemic diseases including the exanthemata, (9) genodermatoses (hereditary, congenital, dysplastic and nevoid conditions), (10) dermatoses not categorically classified as acne vulgaris, vesicular and bullous dermatoses and the papulosquamous eruptions, and (11) miscellaneous or uncommon dermatoses and/or related conditions.

Finally, a glossary of common technical and usual words, terms and phrases used in dermatology are presented. A formal or lengthy bibliography has not been appended and the few references included appear at the bottom of the appropriate pages. The photographs and tables are excellent.

The term "Practical" as used in the title is in some respects not entirely appropriate, as the material covered, although comprehensive, is practically an encyclopedia of information. Relatively uncommon conditions such as tuberculosis (including an elaborate and technical classification), leprosy and diseases due to the deep or systemic fungi, could be given the same amount of space as is given to syphilis. The formulary is rather long, and would be more practical if only a few common and efficacious prescriptions were given. Some of the conditions under miscellaneous or unclassified could be categorized under congenital, diseases of collagen, or connective tissue or systemic diseases, vitamin or deficiency diseases, lymphomata or granulomata, etc. However, derogatory criticisms are minimal, and the congratulatory, maximal, on a work well done.

HERBERT B. CHRISTIANSON, M.D.

**The Office Assistant in Medical or Dental Practice:** By Portia M. Frederick, and Carol Towner, Phila., W. B. Saunders Co., 1956. 351 p. Price: \$4.75.

Books of instruction regarding the procedure of medical practice in the office will continue to be published because there can be no perfect book of instructions for every physician's needs. Nonetheless, a close approach to the ideal is to be found in the book, "The Office Assistant in Medical or Dental Practice," by Portia M. Frederick who teaches Medical Office Assisting at Long Beach City College, and Carol Towner, who is Executive Assistant in the Department of Public Relations of the American Medical Association. Published by the W. B. Saunders Company, its contents include both office procedure and nursing assistance with a completeness which makes reading this book a rewarding pleasure for the physician himself, as well as providing a continuing stimulus to either the novice or the trained assistant.

Judiciously included in its wealth of instructive material are excerpts from "Medical Economics" and other sources known to all physicians. Not one paragraph is superfluous, yet all aspects of procedure from handling patients, records, and mail, through insurance records to the understanding of professional and health organizations are included. It is unlikely there can be found anywhere else a more inclusive and satisfying source of practical aids in this

area of practice in which no one has found all the answers.

DAVID F. MEENS, M.D.

**Pathologic Physiology, Mechanisms of Disease, 2nd Ed.:** Edited by W. A. Sodeman, M.D., Professor of Medicine, University of Missouri School of Medicine, Columbia, Missouri, and various contributors. W. B. Saunders Co., Philadelphia, 1956. Price: \$13.00.

The first edition of this valuable monograph filled a definite need in its attempts to provide sound physiologic and pathologic reasons for clinically observed phenomena. As the author states, the work is not intended as a substitute for standard texts in medicine and physiology, but as a bridge between the two. In the second edition this goal is again largely achieved in many areas and less so in others. Most of the chapters have been lengthened and several new ones added. In the latter group, the section on the central nervous system contains no information not found in standard texts and shows little attempt at varying the approach normally taken in them. One hopes that future editions will not be progressively lengthened lest the book lose much of its value as a concise integrating discussion. The most valuable sections remain those on metabolism, the circulatory, digestive, and urinary systems, and the blood; and indeed these make up the bulk of the volume. Numerous diagrams aid in the understanding of the generally lucid text. The various contributors are eminent, and the reliability of the material appears to be excellent. The bibliography and index are adequate. The book is printed with clear type on good paper. It should be of most value to medical students, residents in internal medicine,

and practicing internists; but will also provide stimulating, informative reading for any physician interested in considering disease as physiologic dysfunction.

HUGH McGEE, M.D.

**Diagnosis and Treatment of Vascular Disease (Angiology):** Edited by Saul S. Samuels, A.M., M.D., F.A.C.A., Chief, Department of Peripheral Arterial Diseases, Stuyvesant Polyclinic Hospital, New York. 521 pages, illustrated. Williams and Wilkins Company, Baltimore, 1956. Price: \$16.00.

Diagnosis and Treatment of Vascular Diseases (Angiology) is a textbook prepared by seventeen contributors with Saul S. Samuels, M.D., as Editor-in-chief. The contributors represent a wide experience in the diverse phases of vascular disease and can be considered authoritative.

The purpose of the volume, as expressed by Dr. Samuels in the preface, is to organize all aspects of vascular disease into a specialty field to be known as "Angiology."

The general coverage of vascular disease is comprehensive beginning with a chapter on the anatomy of blood, vessels, the innervation of blood vessels, and the physiology of sympathetic innervation. A noteworthy chapter follows on examination of the patient, including diagnostic procedures. Angiography is well discussed and illustrated. The various entities are then covered separately, followed by a chapter on the "Medical Legal Aspects of Angiology."

The material is concisely presented. The print and paper are good. The volume is well footnoted for specific references and the bibliographies are extensive.

The lack of description of many surgical ma-

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neuers might be criticized by the surgeons. However, such inclusions would produce a cumbersome volume for general reference. Illustrations are adequate in number and of good quality.

This book can be recommended to the general practitioner, general surgeons, and to both the medical and surgical "angiologist."

WILLIAM R. COPPINGER, M.D.

**Handbook of Pediatric Medical Emergencies:** By Adolph G. DeSanctis, M.D., with the collaboration of Charles Varga, M.D., and ten contributors. 2nd edition. St. Louis, C. V. Mosby Co., 1956. Price: \$6.25.

The second edition of this excellent book replaces a deservedly popular first edition published five years ago. It once again extends to those who care for children an invaluable helping hand in a tight spot.

This newest revision is larger than the old by about 100 pages. The print is clear and the text concise and readable. The general pattern of the earlier work is preserved as can be seen by a list of the chapter headings. These are as follows:

- I. Cardiovascular Emergencies
- II. Metabolic Emergencies
- III. Genitourinary Emergencies
- IV. Neurological Emergencies
- V. Respiratory Emergencies
- VI. Respiratory Paralysis in Poliomyelitis
- VII. Care of the Premature Infant
- VIII. Miscellaneous Emergencies
- IX. Pediatric Procedures
- X. Drowning
- XI. Poisoning
- XII. Accident and Poison Prevention

It should be noted that the chapter on Metabolic Emergencies is new and embodies not only a discussion of the fundamentals of pediatric metabolic biochemistry but a skillful application of these principles to the problem of dehydration, water intoxication, acidosis and alkalosis, electrolyte disturbances, vomiting and diarrhea, diabetes and diabetic acidosis, and the dangers implicit in parenteral therapy.

The multiple authors have refrained from expressing in print too many primarily local and personal convictions regarding the treatment of pediatric emergencies. Throughout the book they have adhered to principles that are shared by the majority of those in recognized centers who deal with these matters.

The chapter on Pediatric Procedures is somewhat limited as far as precise descriptions of technique are concerned but this type of skill and the knowledge of short cuts and complications can be acquired only in actual practice. Pictures and drawings are used generously throughout and are clear. The section on Poisoning by various agents and the composition of those agents has been brought up to date, and this book forms a good companion to the Handbook on Accidental Poisoning published by the American Medical Association.

It would seem that the inclusion of a discussion of hemolytic disease of the newborn due to iso-immunization is justifiable. Certainly, if a Wilms' tumor is an emergency, hemolytic disease of this type is more so. The technique of exchange transfusion and the application of this useful and dramatic procedure to other dangerous conditions such as overwhelming salicylism, for example, should be included.

This is a major omission but does not seriously detract from an otherwise carefully designed and thoughtfully composed text. This book

should be in the house-call bag and on the book shelf of every physician who must, at one time or another, face a sudden and frightening disaster involving a child.

SEYMOUR E. WHELOCK, M.D.

**Diseases of the Breast:** By C. D. Haagensen, M.D., Professor of Clinical Surgery, The College of Physicians and Surgeons, Columbia University; Director of Surgery, The Francis Delafield Hospital, Columbia-Presbyterian Medical Center. 751 pages, 404 illustrative figures and 25 charts. W. B. Saunders Company, Philadelphia and London, 1956. Price: \$16.00.

Doctor Haagensen's life long interest in this subject, and his opportunity to be in a position to pursue his studies in an atmosphere where there has been an abundance of material and insistence upon unfettered investigation, as well as his close personal association with one of the world's outstanding soft tissue pathologists, Doctor Arthur P. Stout, gives this book a permanent place among those treatises which form the frame of reference for modern surgery of the breast.

The text consists of thirty-one chapters. The first two deal with mammary anatomy and physiology. Three chapters consider the detailed methods of establishing a diagnosis including Doctor Haagensen's technique of biopsy. There will be a considerable amount of disagreement with his biopsy since he advocates the incisional rather than the excisional technique. Those who disagree, however, will have to admit that Doctor Haagensen's results over a period of thirty-five years have certainly justified the technique in his hands. Eleven chapters cover the field of benign breast conditions, leaving the remaining sixteen chapters for the problem of malignant breast disease.

Statistically every attempt has been made to present the world's experience so that the surgeon and student may have ready reference to the best work that has been done and the results of the many investigators.

Doctor Haagensen emphasizes the continuing need for better criteria for the selection of cases suitable for surgical treatment. In this regard he presents what he calls the triple biopsy as one approach to providing suitable criteria of operability. The triple biopsy includes a biopsy of the breast lesion for diagnosis followed immediately by removal of the first three parasternal internal mammary nodes and the apical axillary nodes. If any of the internal mammary or apical axillary nodes are involved with carcinoma the patient is refused radical surgery and is treated by irradiation. If surgery is performed, a classical Halsted radical mastectomy is done. Doctor Haagensen makes a great point about the difference between a Halsted radical mastectomy and what he chooses to call the Standard American radical mastectomy as performed by many clinics in this country. Any student or surgeon wishing to refresh his memory about the details of the radical mastectomy would do well to review Chapter 27 of this book.

There is no question but that this book is a major contribution to the knowledge and armamentarium of all who are interested in this subject.

BERNARD T. DANIELS, M.D.

#### TB NOTES

Although acceptance of specific therapy is a primary goal in the control of tuberculous disease, it is not the only one. In a broader sense



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**Blue Cross Representative on Board of Trustees:** Glenn Saunders, Denver.

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modern medicine strives to return to society an individual free from organic disease, capable of assuming personal, family and community responsibilities. A concept such as this implies that the individual will be physically able to work—that he will have been prepared for some vocation. Not every patient, of course, will need to acquire a new occupation. There are many, however, who never have had a vocation and will have to be trained in one compatible with physical status and aptitude.—Sidney H. Dressler, Am. Rev. Tuberc., August, 1956.

Of the biological factors involved in the etiology of tuberculosis, nutrition is perhaps the most important. Even before the discovery of the tubercle bacillus the value of a liberal diet in the treatment of tuberculosis was generally recognized. And, conversely, the association of phthisis with malnutrition was apparent. Complete proof of the role of malnutrition in tuberculosis is still lacking but the evidence is convincing.—Alton S. Pope, M.D., and John E. Gordon, M.D., Am. J. Med. Sciences, September, 1955.

However successful our treatment of tuberculosis in children and young adults may be, unless we control the disease in the higher age groups we shall be a long time reducing the incidence of the disease in the population. The active cases in elderly men and women are going to form the hard core of infection in the community that may give rise to local epidemics of acute cases among the young contacts. It behooves us, therefore, to discover, treat, and if necessary isolate these dangerous old men

and women and to do all we can to protect our children and young adults from the risks to which they are exposed.—F. R. G. Heaf, M.D., J. Royal Inst. Pub. Health and Hygiene, November, 1955.

Tuberculosis is rapidly being brought back—literally and figuratively—into general medicine and its treatment is no longer largely confined to isolated, outlying sanatoria. Thoracic surgery, with its requirements of highly skilled surgeons, anaesthesia, blood banks, specialized techniques and equipment, started this process, and the chemotherapy of the antimicrobial era has hastened it.—Irving J. Selikoff, M.D., J. of Mt. Sinai Hosp. of N.Y., July-August, 1956.

## STATEMENT ON HOXSEY CANCER TREATMENT\*

**By George P. Larrick**  
**Commissioner of Food and Drugs**

For the second time, a Federal court has determined that the Hoxsey medicines for internal cancer are worthless. On November 15, 1956, after a six-week trial in the Federal Court at Pittsburgh, the jury returned a verdict that these medicines, in pill form, were illegally offered as an effective treatment for cancer. On November 16, U. S. District Judge John L. Miller signed an order of condemnation stating that the pills were misbranded as charged by the government and ordering their destruction.

The public should know, however, that this action does not end the menace of this fake treatment. It merely means that half a million of the Hoxsey pills, which were seized shortly after the opening of a second Hoxsey Clinic at Portage, Pa., will now be destroyed. An injunction is being sought to stop further interstate shipment of the pills. We intend to use every legal means within our power to protect con-

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sumers from being victimized by this worthless treatment.

In the meantime it is of the utmost importance that cancer patients and their families, who may be planning to try the Hoxsey treatment either at Dallas, Texas, or Portage, Pa., should acquaint themselves with the facts about it. All such persons are advised to secure a copy of the public warning which was issued by the Food and Drug Administration last April. They may do this by writing to the Food and Drug Administration, Washington 25, D. C.

Harry M. Hoxsey has continued to promote his worthless cure for more than 30 years, notwithstanding numerous local and state court actions. Proceedings under the Federal Food, Drug, and Cosmetic Act did not appear possible until a 1948 decision of the Supreme Court interpreting the word "accompanying" in the definition of labeling under the Act. An injunction suit was filed in 1950 and a decree finally issued by the Federal Court at Dallas in 1953.

Over the years thousands of persons have been deceived by the false claims for the Hoxsey liquid medicines and pills. At the Pittsburgh trial there was testimony concerning persons who may have died of cancer as a result of reliance on the Hoxsey treatment instead of seeking competent medical treatment in the early stages of their condition. The government's evidence showed that alleged "cured cases" presented by defense attorneys were people who either did not have cancer, or who were adequately treated before they went to the Hoxsey clinic, or who died of cancer after they had been treated there.

\*The foregoing information was released November 23, 1956, by the U. S. Department of Health, Education, Welfare, Food and Drug Administration, Washington 25, D. C.

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# EDITORIALS

QUESTIONS of ethics become more challenging as plans for prepaid medical service evolve and expand their scope, especially those plans of industries, unions, and pri-

## *Free Choice Of Physician*

vately organized associations of one kind and another as distinguished from established insurance companies' policies and from the Blue Cross and Blue Shield plans which are themselves based on sound insurance principles.

We believe—and the House of Delegates of our largest Rocky Mountain medical organization has recently reiterated in no uncertain terms—that the free choice of his physician is one of the fundamental rights of every citizen.

Gradually and almost so insiduously that it had escaped the notice of most physicians, certain prepayment plans have modified, thwarted, and some have arbitrarily removed that right. Particularly is this true of a number of industrial plans—some controlled by management, some by organized labor and some by joint action of both—which include the medical care of employees' dependents as well as care of employees for sicknesses and injuries wholly unrelated to their employment.

It would seem to us that compulsion of any person to use a physician chosen by a third party except where federal or state law specifically so provides makes the physician participating willingly in such a plan unethical. We can see no other logical interpretation of the Principles of Medical Ethics of the American Medical Association, which we are all expected to observe.

We realize fully that "free choice of physician," as a phrase or as a principle, is difficult to define. There are many communities — let's think of a small mining camp as an example—which could not support a physician were it not for subsidy or some form of guaranteed income. Whether this stems from a community subsidy, a

salary paid by management, or from a payroll check-off or private association "dues" appears to us to make little difference. It should not subject the physician to question as to ethics, because free choice of physician by patient or free choice of patient by physician is a practical impossibility.

But take the other extreme, the metropolitan area like Denver or Salt Lake City or Albuquerque in particular—and many other cities in our area are approaching similar medical situations. Hundreds of physicians to choose from. Every specialty well represented. We hear of prepayment plans which in these areas effect compulsory use of some single physician or employed panel of physicians by making participation of employees in such plans a condition of employment.

If a man cannot hold a job without subscribing to and paying for a medical plan that denies his fundamental freedoms, isn't he in just as un-American a squeeze as if he worked under one of the European socialized medicine plans? And isn't the physician who accepts such employment and thereby makes the compulsion possible violating our Principles of Ethics? We think so.

All of us—physicians, citizens, legislators—who are now deeply concerned with the ethics and legalities of special medical funds and panel plans, know that between these two extremes of what we might call "black and white" are many shades of gray, and that somewhere within that "spectrum" a line must be drawn whose placement is not yet quite clear. We also know that average citizens cannot consistently choose wisely the appropriate physician or surgeon to administer specialty care for cases which require it. Recognizing this latter fact, laws have long provided that the employer who is legally liable not only for medical care but for workmen's disability payments has the right within reasonable limitations to choose the physician and the hospital in

cases of occupational injury or illness. The same legal principles (with which we frequently disagree, but it's the law!) apply to care of the indigent and to almost all wards of government at national, state and local levels. However we may feel about the rightness or wrongness of these laws, we do recognize that still another basic principle in our ethics requires every physician to abide by the laws of his community.

But, beyond that, we will fight compulsion at any and every level. And we believe that the officials and delegates of our Rocky Mountain societies who will carry this fight to the national level come next June are taking the only sound course.

By "compulsion" we include what we think of as "pocket-book compulsion." A small minority, led primarily by those who would like to dominate medical practice in our area, cry that free choice still exists because the employees or beneficiaries of these insidious plans may still consult the physicians of their choice—by paying the bill themselves. The pocket-book compulsion enters because these employees have already been forced, as a condition of employment, into a pay roll deduction to pay for the "plan." In our opinion, it is still pocket-book compulsion when management has "absorbed" the whole cost of the plan or when it is paid for out of some huge fund accumulated in advance by what amounts to a union-enforced tax on the employees' product.

We believe that our stand in this matter defends the best interests of those to whom our lives must be dedicated: our patients. What percentage of the cure is traceable directly to the patient's personal confidence in his physician? No one can safely write down the figure, but both history and present practices make us all realize that the figure would be large. Thus our responsibility to preserve the good that freedom of choice does for the patient is clear, wholly aside from our equal responsibility to fight for preservation of American freedoms.

It should not be too difficult for existing plans of questionable status to liberalize their operations, recognize our principles, and start the pendulum swinging back toward freedom. A few, but too few, have

done so. We should help all of them to do so, and if after a reasonable time and thorough understanding of all that is involved some of them still refuse, we believe our State Medical Societies should enforce without fear or favor the principles upon which American medicine has been built into the finest and most successful system of medical care the world has ever known.

THE impressive story of the accomplishments of U. S. medical schools will be told to the nation during the second annual observance of Medical Education Week, April

### *Medical Education Week*

21-27, and the medical societies of the Rocky Mountain region have been invited by the national sponsors to develop plans for community programs in this area. The purpose of the observance is to focus the attention of the American people on the national importance and indispensability of medical education. A well-organized program of public information will bring about greater friendship and support for the medical schools by creating a better understanding of their aims, problems, achievements, and public services.

President Eisenhower, in his personal endorsement of this observance, said, "While the benefits of health and medical education are daily with us, it is fitting to devote a special week to the consideration of the wider training of physicians. Each American has a personal stake in our country's medical schools. The schools which train the physicians required by our growing population are a vital resource for the health of our people and the strength of the nation."

Specific aims of Medical Education Week, if pursued effectively, will demand the participation of a large portion of our members. These are the goals:

1. To portray the key role that medical education plans in the promotion and maintenance of the nation's health and security, and make the public aware that the nation's eighty-two medical schools are the foundation of our entire health and medical structure.

2. To explain how the medical schools are

striving to meet the demand for larger numbers of physicians and, at the same time, to maintain the high standards of training that have come to characterize American medical education.

3. To call attention to the steady progress in the medical sciences, showing what this means in terms of longer life, better health and greater freedom from disease and disability.

4. To point out the wide range of activities—teaching, research, service and leadership—carried on by the modern medical school in addition to its job of training new doctors.

5. To make clear the extent and nature of the new challenges to the profession, some growing out of our constantly expanding fund of medical knowledge and some resulting from the mounting complexity of our civilization.

6. To point out some of the steps being taken constantly to push back the horizons of the medical sciences and to realize the full potential of the nation's health resources.

While medical societies and medical schools throughout the country build community programs around these objectives, the national sponsors—the AMA and the Woman's Auxiliary, the Association of American Medical Colleges, the Student AMA, the American Medical Education Foundation, and the National Fund for Medical Education—are enlisting the help of newspaper syndicates, radio and television networks, popular and professional publications, civic groups, and industry in a broad program of national publicity and promotion.

**T**HE rush of practice, the need for expedients, and our eternal optimism sometimes cause us to miss the diagnosis. With cancer, a missed diagnosis is a sobering unhappy experience for the patient, family, and doctor. The following message, an excellent reminder of our vulnerable areas in cancer diagnosis, was prepared by the American Cancer Society for their brochure "Cancer Detection in the Physician's Office":

**"Every Doctor's Office  
Should Be a Cancer  
Detection Center"**

**THE SEVEN TRAGIC DIAGNOSTIC  
MISTAKES**

There is nothing more tragic in the practice of

medicine than the discovery that a supposedly benign lesion which has been under medical care is malignant. It is also true that in many instances the diagnosis of a malignant tumor may be missed even when the physician suspects and diligently searches for its presence. There are, however, general errors in the diagnosis of cancer that can be avoided. These are in a way corollaries to the Seven Cancer Danger Signals and may be called the Seven Tragic Diagnostic Mistakes.

1. Failure to make a diagnosis of intra-oral cancer on the assumption that it is a "canker sore" is an error that is avoided simply by making a biopsy of the lesion.

2. Failure to diagnose carcinoma of the breast because the physician believes the lump is a benign lesion, such as fat necrosis or inflammation, should never occur. A lump in the breast must be assumed to be malignant until biopsy proves it otherwise.

3. To treat a patient with the conviction that his symptoms are due to a duodenal or benign gastric ulcer without radiologic or laboratory evidence of the disease is to miss a diagnosis of cancer of the stomach. Barium x-ray examination of the stomach, gastric analysis for acid content, and study of the feces for blood should be performed prior to beginning treatment of a suspected peptic ulcer.

4. Failure to recognize that an inguinal hernia, especially of long duration, which suddenly becomes symptomatic may be associated with carcinomatous lesions of the prostate or colon is a pitfall to be avoided. The dynamics to straining to void or defecate may be the cause of the sudden increase of the symptoms from the hernia. In such instances the physician should investigate the possibility of prostatic or colonic lesions and not devote all of his thought to the hernia.

5. To treat abnormal uterine bleeding caused by cancer with hormones, without a histologic diagnosis of the cause of the bleeding, is an error that is easily avoided. These patients should not be given hormonal or other medication until cancer of the uterus has been excluded by adequate histologic examination.

6. Failure to recognize that bleeding piles may mask a coexisting rectal carcinoma is a tragic oversight. Thus, even in the presence of bleeding hemorrhoids, it is necessary to exclude the possibility of coexisting polyps or cancer of the rectum and colon by digital rectal examination, proctosigmoidoscopy, and barium enema.

7. To treat anemia without recognizing that cancer may be the primary cause of the blood loss is a serious error. Cancer anywhere in the body may be associated with anemia, and gastric and large bowel cancers are notorious for the anemia they cause.

# ARTICLES

## Premedical Education At the University Of Wyoming

L. Floyd Clarke, Ph.D.  
LARAMIE, WYOMING

*Since 1950 Wyoming has participated in an interstate program for training its young people in the health professions. The major emphasis has been on the training of physicians and an agreement with the University of Colorado School of Medicine for a yearly quota of Wyoming students was instrumental in bringing about the establishment of the Western Interstate Commission for Higher Education. Dr. Clarke describes the problems of premedical students in obtaining admission to medical schools over the nation. He also discusses the moral and social responsibility of those who are physicians or are planning to be. The University of Wyoming, the state's only institution of higher learning, carries out its obligation through the WICHE compact for training these young people in the various health services. Students are also trained in dentistry and veterinary medicine in western area schools.*

A STATE university's prime responsibility is to provide the educational resources essential for the general welfare of all of the people. Among the most important factors in this general welfare is the health of the people. Those individuals with special training in the health services must assume responsibility for both prevention and cure. But the effectiveness of their efforts are conditioned by the adequacy of their own education as well as the cooperation of a well informed public. For both of these the university must assume a major responsibility. A university health education program for all its students and especially

for those who will be teaching in the public schools of the state is one in which the University of Wyoming is doing much but, as in most other institutions of higher learning, much more could and should be accomplished. This is a subject on which much could be said but is not the topic of this paper. My discussion will be confined to the problem of education of the professional in the health service field and, more specifically, the doctor, with the major attention being given to premedical education.

Before doing this, however, I should like to mention briefly what the University is doing in the other health services. Several years ago as a part of an over-all University developmental study the problem of what the University could and should do in the

\*Presented at the 53rd Annual Meeting of the Wyoming State Medical Society, June 29-July 1, 1956. Dr. Clarke is the Premedical Adviser at the University of Wyoming.

health services was investigated. As a result the University has initiated and developed sound and effective professional programs in nursing, medical technology, and pharmacy, and has worked out cooperative plans with other institutions for the professional education of Wyoming students in medicine, dentistry, and veterinary medicine.

The study revealed that it was not feasible to attempt to set up in our own state professional schools in these latter three fields. The considerations which influenced this decision were:

1. The cost of such education.
2. The inadequacy of clinical materials to develop first rate schools.
3. The limited numbers of medical doctors, dentists, and doctors of veterinary medicine which the state requires.

Consequently, the efforts of the University have been directed toward other methods of insuring adequately trained medical personnel for our own state requirements and to make worthwhile contributions to the national health program. Through the efforts of the University, contacts with leading medical and dental schools have been established and maintained with the result that the young men and women who successfully complete their pre-professional work have excellent opportunities for placement in professional schools. Many of the dentists of our state are interested in the development of a cooperative arrangement for the training of dental hygienists. The feasibility of such a program is under investigation at the present time. Pre-professional training is also available at the University of Wyoming for students interested in physical therapy, optometry, and other health fields.

A major development in our efforts to provide adequate education for Wyoming students in the health services not available at the University of Wyoming was the initiation in 1950 of a grant-in-aid program. In 1950 the Wyoming State Legislature passed a bill authorizing the University of Wyoming to enter into agreements with schools of medicine, dentistry, veterinary medicine, and nursing for education of Wy-

oming students. That same year an agreement was completed and immediately put into operation with the University of Colorado School of Medicine for the acceptance of five students each year from Wyoming. Since that time the number has been increased to eight and can be increased to ten if necessary. Subsequently, contracts have been completed with the University of Oregon School of Dentistry and Colorado A & M School of Veterinary Medicine.

Since that time the governors of the western states, in their wisdom, initiated a program for the creation of the Western Interstate Commission for Higher Education. They saw many of their best men and women going out of the state for professional education and never returning. They realized the state's responsibility for providing equal educational opportunities in all professions and, at the same time, realizing the undesirability if not the impossibility of establishing professional schools of medicine, dentistry, veterinary medicine and others in all the states. The alternative was to establish a plan of regional cooperation whereby the educational resources of any part of the west could be made available to all the west. The obligation of the University to furnish educational facilities to students interested in the study of the health sciences is largely met by this cooperative program.

This program is now in operation involving the cooperative efforts of ten western states and Alaska. The medical schools, besides Colorado, participating under the compact are Stanford, College of Physicians and Surgeons, School of Medical Evangelists, University of California at Los Angeles, University of Oregon, University of Southern California, University of Utah, and University of Washington. I should like to point out that no small part of the development of this program in medicine can be attributed to agreements which the State of Wyoming, through its University, developed initially, and to the continuing progressive leadership of President G. D. Humphrey, Dr. Franklin Yoder, Dr. George Phelps and Dr. William Hocker, among many others.

Last year Wyoming had thirty-five stu-



dents participating in the program—more than any other state in the compact. Of these, twenty-three were in medical school. We anticipate fifty students will be under the program during 1956-57. The maximum number we might expect in the immediate future would be eighty—forty in medicine, twenty in dentistry, and twenty in veterinary medicine. However, our immediate plans do not call for this number. The total will probably not exceed sixty in the near future, thirty-two of whom will be in medicine. This would mean that eight students will receive their M.D. degrees per year and after an internship will be available to enter medical practice.

A considerable number of students from the University of Wyoming attend medical schools not included under the compact. These include such schools as Northwestern, Chicago, Minnesota, Creighton, Washington University, St. Louis University, Rochester, Jefferson, Cornell, George Washington, Georgetown, and others.

You may be interested in the procedure followed in the placement of a premedical student in medical school. The student consults with his adviser and usually decides on three to five medical schools, any of which he would be willing to attend. Then he writes for the application blanks, fills them out and supplies to the medical school the transcripts and other credentials necessary. Recommendations are usually requested directly by the medical school of those people listed by the premedical student. In the case of the University of Colorado, all of the forms for application and recommendation are available in my office. The student must then make application for and take the Medical College Admission Test, which is administered uniformly and simultaneously to premedical students all over the country. The scores of this test are supplied to the medical schools as requested by the student. The schools use the test scores as one factor in selecting the applicants they admit. Approximately 12,000 premedical students take this test each year.

After the Admissions Committee of the medical school has all of the credentials and recommendations for the student it then usually calls each student in for interview,

after which the committee makes its selections. However, in the case of the students under the Interstate Compact Program, Wyoming requires that they make application for grant-in-aid and appear for interview before the Wyoming State Grant-in-Aid Committee. This committee, after the interview, evaluates the candidates and submits a list of those students which it approves to participate under the program. The medical school then makes its selections from this list. In no instance will the state support any student who has not been approved by this committee.

The number of premedical students from Wyoming applying for entrance into medical school each year since the close of World War II has varied from more than twenty to as few as ten. As you know, immediately after the war we had a large influx of veterans for a few years. This was followed by a decline in enrollment. However, during the last two years our premedical advisees, including both premedical and pre dental, have increased by 50 per cent. This year we have ninety-three advisees of whom about two-thirds are interested in medicine. If the above trend in enrollment increase continues for the next two years our enrollment will be considerably higher than the maximum postwar enrollment of 120.

A word about the record of placement of Wyoming premedical students might be in order. Over a five-year period from 1949 to 1954, of 107 entering freshmen in premedicine, sixty-six completed their premedical training and were placed in medical school for a percentage of 61.6. Of those who actually get far enough along in premedicine to make application, our placement record is about 80 per cent as compared with a national average of about 50 per cent.\*

A fact which is not well understood is that the University of Wyoming can render more effective service in the placement of Wyoming residents than any other school. Students are sometimes advised to attend

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\*National average taken from "Education For The Professions," published by the U. S. Department of Health, Education and Welfare, 1955, p. 136.

a school for their premedical education which also has a medical school. On many occasions, students who have followed this advice have returned to the University of Wyoming for assistance in being placed in a medical school. I am quite certain that neither the quality of the premedical education nor the chances of placement in a medical school is improved by going out of state for premedical training.

The next logical questions are how well do our students do in medical school and how successful are they in subsequent medical practice? Of the thirty-eight students entering medical school under our grant-in-aid program since it started, one left the medical field entirely, one transferred to medical technology, and one transferred into dentistry. The remaining thirty-five have either successfully completed their medical education or are now doing so.

In recent years the Council on Medical Education has been compiling ratings on medical students from all medical schools and then reporting these results back to the premedical schools from which the students came. Based on whether a student rates in the upper, middle or lower one-third of his class, the average rating of all Wyoming students has been average or slightly above every year since these ratings have been available to me. I realize that scholastic average is not the all-important, or even the most important consideration in the qualifications of a doctor, but it is the most objective evidence we have.

Possibly you will pardon a personal experience which might be indicative of the fine qualities of the young men and women Wyoming places in medical schools. While I was in Buck Hill Falls, Pa., as a member of a committee studying the problem of preparation for medical education, I was introduced to a premedical adviser from another school who had just come from the University of Rochester School of Medicine where he had been talking to the Dean of that school. When my name and the University of Wyoming was mentioned he said the Dean had just commented on the fact that some premedical schools could al-

ways be counted on to send students with good scholastic backgrounds and fine personal qualifications. He mentioned the University of Wyoming as an example of such a school. I accepted this as a tribute to the educational standards of the University, in part, but even more as a tribute to the sincerity, integrity, and interest which is characteristic of the young men and women who enroll in our premedical curriculum. Associating with these young people, watching their intellectual and moral development, and offering guidance and encouragement has been my most rewarding experience. A long list of successful doctors who received their premedical education at the University of Wyoming could be compiled.

Next I should like to consider briefly the purposes and organization of the premedical curriculum at the University of Wyoming. The importance of a strong premedical program is recognized by the Council on Medical Education of the American Medical Association. From a one year college requirement for entrance into medical school established by them in 1914, they recommended three years of premedical work in 1938 and required it in 1953. Now the Council recommends that in order to acquire a broad premedical education, the student should take the full four-year college course. Some medical schools now require the college degree or its substantial equivalent for entrance. Over the country as a whole, approximately 70 per cent of the entering medical students have bachelor's degrees. My experience at the University of Wyoming, however, would indicate that because of the decrease in the number of premedical students in recent years, medical schools are accepting more students with only three years of college.

The content and methods of a premedical education must be determined by the purposes to be served. If we can determine the most desirable attributes of a good physician, we should be better able to develop an educational system which will contribute to these attributes. Some of the qualifications of a good physician with which we are concerned are: (1) scientific knowledge and technical skill; (2) motiva-

in which I have used them. This experience is consistent with reports of other workers.

More recently hydrocortisone, especially



Fig. 1. Recurrent keloid, a massive tumor gradually increasing in size.



Fig. 2. Other keloids, now stabilized—possibly related to attainment of physical maturity of the patient. These were not treated.

combined with hyaluronidase injected into and about the keloid, has been reported by various writers. This treatment is painful. Results reported vary from good to fair in early cases, while in the old lesions it resulted in little or no benefit.

Drs. J. C. Allan and P. Keen, writing in the South African Medical Journal about a large experience with the native Bantu, state that keloids are rare in infancy and unusual under the age of ten years. In a review of keloids in the A.M.A. Journal of May 5, 1956, Asher Hansen and co-workers report injection of a 25 milligram solution of hydrocortisone into a series of fifty-six fresh and old keloids. This was more or less painful, but it caused softening and disappearance of most of the keloids. Best results were with the fresh keloids.

Cornbleet reports injecting a solution of hyaluronidase in isotonic sodium chloride. The injections are painful even when a 2 per cent procaine solution is substituted for the saline solution. Gathings injected a series of keloids with hyaluronidase to which Kutoressin (a liver extract) was added with greatly improved results—although some of them required supplementary treatment by irradiation or carbon dioxide snow.

An interesting development along an entirely different line was described by Kurtter and co-workers who treated two patients with an ultrasonic apparatus. Subjective symptoms were alleviated, and induration and size of the keloids reduced. This work is still in the experimental stage; further developments will be awaited with much interest. Meanwhile, excision with skin grafting in the larger defects, and irradiation, give the best results.

In the case herein presented, excision of the large tumor with immediate skin grafting of the defect was performed by Dr. Douglas W. Macomber. Edges of the wound were allowed to retract and an intermediate split thickness graft from the thigh applied. Stitches were removed on the fifth day and pressure maintained for three weeks, following which prophylactic irradiation to edges of the graft was invoked. There has been no recurrence of keloid in a year, and slight hypertrophy of scar at

junction of the graft and edges of the wound has not increased. (See Fig. 3).



Fig. 3. One year after excision, undercutting and allowing edges of wound to retract, and intermediate split skin graft from thigh. Early postoperative irradiation to edges of graft. (Photos: Courtesy of Drs. L. W. Macomber and Lloyd V. Shiel.)

From a surgical standpoint, there is one principle which must not be violated in treatment of keloid: Suturing of a wound under any tension is positively contraindicated. It is probable that failure in this case of an earlier operation was due to tension, which blanches circulation to edges of the

wound and thereby retards rate of healing. Anything which retards healing is apt to beget hypertrophied scar or keloid. The latter term, strictly speaking, should be applied to scars which grow indefinitely and are, therefore, new growths. Infected wounds and third degree burns are notoriously prone to keloid formation as are scars over the mid-line of the body, such as the sternum. Thus, we may be sure that any factor which retards healing can be directly or indirectly responsible for formation of hypertrophied scar or keloid, or both. Children and young people are often susceptible until growth ceases. It is possible that the patient in this case report, who was a youth at the time of his injury, may at first have had a greater tendency toward keloid formation because of his physical immaturity. Attesting this possibility is the fact that the smaller tumors over chest and upper abdomen had become stabilized. We are pleased to "leave well enough alone" in all but the large unsightly tumor whose growth was seemingly unlimited.

In conclusion, the actual cause of keloid is unknown and its treatment unsatisfactory. Prophylactically, wounds should be healed at the earliest possible time with the aid of local cleanliness and systemic antibiotics as indicated; elective incisions and accidental wounds should never be sutured under tension. Postoperative irradiation therapy early, when fibroblasts are new and fibrocytes are young, is conspicuously worthwhile.

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#### FILM ON DIABETES

The film "Urine Sugar Analysis for Diabetics," developed in cooperation with the medical profession, is available at no charge to the medical and allied professions through Ames Company, Inc.

The film was made as a visual aid to be used in the education of diabetic patients and shows the relationship between carbohydrates and insulin. It also explains in lay language the mean-

ing of various diabetic conditions. It has been produced on 16 mm. film in color and sound track with a running time of approximately ten minutes. Appropriate "hand-out" literature accompanies the film.

Showings at diabetic clinics, diabetic lay societies and other diabetic groups must be requested by the medical or allied professions to Ames Company, Inc., Elkhart, Indiana, or an Ames representative.

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Letters to the editor agreeing or disagreeing with editorial comments are encouraged. Let us hear from you.

# Neurosurgical Management Of Pain in Malignant Disease

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*Many physicians are unaware of this gratifying relief available to sufferers from inoperable malignant disease.*

PAIN produced by metastasis or an inoperable malignant process can frequently be relieved by neurosurgical procedures. Prior to instigation of operative measures, certain criteria should be established. Although it seems superfluous, it must be emphasized that the primary disease must be accurately diagnosed, and assurance obtained as to its malignancy, as well as the fact that the pain is due to the malignancy and not to some secondary benign lesion. Furthermore, it must be ascertained that the pain cannot be satisfactorily controlled by less radical methods, such as opiates or radiation therapy. The sectioning of local nerves either surgically or chemically (alcohol block), as a general rule, provides only temporary relief, and is useful only occasionally in selected cases.

The least desirable procedure is that of prefrontal lobotomy, since analgesia does not occur. The effect of this operation is on the psychic reaction to pain. Since this procedure interferes with the patient's psychic reactions, the undesirable effects of lobotomy may be prominent. In the early postoperative period, confusion, defects of judgment, and bladder and bowel incontinence may be present. At times these persist and require institutional care. Certainly, no one should undertake this type of surgery without first thoroughly reviewing these possibilities with responsible relatives of the patient. In carefully selected cases, however, this procedure can result in a grateful patient and family, since it can afford relief of the emotion caused by pain,

and lessen anxiety in a patient who is aware that he has incurable malignancy.

For the pain produced by carcinoma of the viscera, adequate sympathectomy affords relief until the pathologic process has infiltrated the adjacent somatic regions. When the malignant disease has progressed to this point, sympathetic surgery cannot adequately control the pain. If the malignant disease involves the face, jaw, or neck, a conventional suboccipital craniectomy can be done. Through this exposure, combinations of intracranial section of the fifth and ninth cranial nerves, coupled with the intraspinal sectioning of the upper cervical nerves, will give relief of the pain.

By far the most useful procedure which the neurosurgeon has to offer is spinothalamic tractotomy for the control of pain produced by malignant disease. This operation is done through the usual laminectomy exposure, and consists of selective cutting of the spinothalamic tract within the spinal cord. For pain in the thorax or arm, the spinothalamic tract is cut at the upper cervical level, in the medulla, or even higher in the mesencephalon. For pain below the level of the umbilicus, incision into the spinothalamic tract is usually made at the level of the first or second thoracic vertebra. When chordotomy (spinothalamic tractotomy) is properly done, the patient loses the sensation of pain and temperature over the contralateral aspect of the body below the level of the incision, since the spinothalamic tract is a crossed ascending pathway conducting pain and temperature



sensation. When the pain involves both sides of the body, a bilateral procedure may be carried out.

Complications of thoracic chordotomy are generally minimal and transitory in nature. They usually result from a compromise in the local blood supply and manifest themselves as motor weakness below the incision on the ipsilateral side. There may be loss of sphincter control of bladder and bowel. In the unilateral procedure, it may be permanent, and when permanent it is more frequently the result of a deeply placed incision. Spinothalamic tractotomies in the brain-stem are complicated by undesirable side-effects, such as ataxia and dysesthesias, and therefore are used in only a few cases. The most annoying complication to both

the patient and the surgeon is recurrence of pain. Fortunately, it occurs in only a small per cent of cases. This complication may represent individual variation in the tracts, or homolateral representation of pain in certain unilateral chordotomies, but a more satisfactory explanation is inadequate incision of the tract. In these cases, a repeated surgical procedure of slightly more radical nature will produce the desired result.

#### Summary

The neurological surgeon has much to offer the patient who is suffering intractable pain secondary to incurable malignant disease. A brief review of the procedures which may be employed has been presented.

## The Present Status of Surgery of The Hip\*

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*This excellent review, including statistical data, will bring us up-to-date on arthroplasty of the hip.*

IN SUMMING up my own thoughts concerning the present status of surgery of the hip joint, the following questions have seemed to me to cover the important points which I shall discuss.

1. Has arthroplasty of the hip by modern methods proved to be a satisfactory procedure?

2. If arthroplasty is a satisfactory procedure, which type has proved best? The use of such agencies as a vitallium mold,

acrylic prosthesis, stem prosthesis, and intra-medullary prosthesis will be considered.

3. Does arthrodesis have a place in our present program of surgery of the hip joint?

4. Are osteotomies worthwhile in the light of our present knowledge?

5. Should fresh fractures of the neck of the femur be treated by immediate replacement operations?

6. What type of secondary procedure should be used when arthroplasty fails?

7. What of the future of surgery of the hip in view of present-day methods for prevention of deformities of this joint?

As to the first question, since Smith-Petersen<sup>1</sup> introduced the vitallium mold arthroplasty in 1939, much discussion has

\*Read at the meeting of the Utah State Medical Association, Salt Lake City, Utah, September 6 to 8, 1956. From the Section of Orthopedic Surgery, Mayo Clinic and Mayo Foundation. The Mayo Foundation, Rochester, Minnesota, is a part of the Graduate School of the University of Minnesota.

arisen as to the value of the procedure. Our own experience has led us to believe that this procedure has a valuable place in the armamentarium of the orthopedic surgeon, although our ideas as to its relative merit have changed over the years since we began to use the procedure. Certainly we have had many patients who obtained satisfactory results from the measure, and our failures have been fewer than many have indicated. We believe that a more careful selection of patients for operation, a thorough understanding with the patient before operation as to what he may expect in the way of a result and what is expected of him in order to obtain that result, and a carefully planned follow-up program, all are essential to a good result.

Only those patients who have severe pain which does not respond to reasonably short periods of rest and who have a tendency toward a deformity of the joint should be operated upon. Many patients whose disability is milder can be made comfortable by means of reduction of weight, physiotherapy and limitation of more strenuous exertions to the point at which they can maintain themselves satisfactorily for many months or even many years. Patients who have extensive scarring about the joint as a result of old infections or trauma plus infections are not candidates for the operation. In such cases, because of scarring and disuse, the muscles are badly damaged and all efforts to restore muscle function almost always will be futile. Hence, the best result from a cup arthroplasty cannot be obtained in such instances.

This operation has been in use for more than fifteen years. It seems to me that reports of series of end results are rather few, in view of the widespread use which must have been given the procedure. We are sure that many surgeons, dissatisfied with the early results they obtained from it, have abandoned the procedure.

Law<sup>2</sup> reviewed the results for 150 patients for whom 182 arthroplasties had been performed by Smith-Petersen and associates. Among his conclusions was this phrase: "In this series of patients with arthritis of the hip joint treated by vitallium mold arthroplasty (182 arthroplasties) 80 per cent of

the late results are satisfactory to both patient and surgeon."

Lipscomb and Barber,<sup>3</sup> reporting comparative results of mold arthroplasty done by the Gibson posterolateral approach and by the Smith-Petersen iliofemoral approach, found that when the Gibson approach was used, 9 per cent of results were very good, 38.4 per cent were good, 43.6 per cent were fair, and 9 per cent were poor. In contrast, when the Smith-Petersen approach was employed 4 per cent of results were very good, 32.4 per cent were good, 44.2 per cent were fair and 19.4 per cent were poor. These figures were based on 200 patients studied, with follow-up data on 155.

The reports of end results vary according to the condition for which the operation was performed. There is also a marked variation in the criteria set up by each author for his study of end results. Factors such as these make any comparison of statistics difficult. To simplify and correlate some of these studies, in the matter of "results" I have grouped "excellent" or "very good" with "good," and have transposed all figures to percentages in the table.

TABLE  
Comparative End Results of Arthroplasty  
As Reported in Various Series

Study	Patients No.	Results, by per cent			
		Good	Fair	Poor	Unclassified
Gibson <sup>4</sup> .....	111	58	14	17	10
Badgley <sup>5</sup> .....	80	53	24	22	
Bickel, Ghormley, Coventry, Mussey <sup>6</sup> .....	91	36	32	32	
Bickel, Babb <sup>7</sup> ....	217	53	21	26	
Shepherd <sup>8, 9</sup> .....	404*	39	28	31	
Aufranc <sup>10</sup> .....	1000	22	60†	18	

Law's reporting of results as "satisfactory" or "unsatisfactory" may seem to be deficient on the point of critical observation; on the other hand, we have seen many patients, after this type of operation, who would not do very well in a rigid functional test but who have hips that are very satisfactory, when such factors are considered

\*Osteoarthritis only.

†Called "satisfactory" by Aufranc.

as the patient's age, previous disability and prospective disability had the procedure not been carried out. All these factors should be weighed carefully in any analysis of results.

Anyone sincerely interested in this problem should read a recent report by Aufranc,<sup>10</sup> who presented the end results obtained for 1,000 patients for whom vitalium-mold arthroplasty had been performed. In this study Aufranc classified the results and evaluated them from the standpoints of both the clinical findings and the patients' own estimations.

In 820 cases the results were excellent, good or satisfactory on the basis of clinical evaluation. By coincidence, the same number of patients were enthusiastic or satisfied with the result obtained for them. One hundred eighty patients by clinical evaluation were judged to have an unsatisfactory result, and the same number of patients were noncommittal or unsatisfied with their results. Conditions in these four groups, however, were not identical, for some patients classified clinically as having obtained an unsatisfactory result actually were satisfied personally, and a few for whom good results had been achieved as judged by clinical evaluation were dissatisfied. This paper is a very thorough review of the author's large experience, and should be read by all interested.

Patients who have extensive aseptic necrosis of the head of the femur or extensive degenerative cystic changes in the head of the femur as a rule are not suitable candidates for mold arthroplasties. Those who have old fractures of the acetabulum, with intrapelvic protrusion and extensive scarring, similarly will not benefit from a mold arthroplasty. In our opinion, patients who have a residual active infection of any sort never should undergo a mold arthroplasty, and those who have damage from old infection, unless there is good evidence that the infection has been inactive for many years, should not be advised to undergo such an operation.

Finally, there are those patients who obviously are temperamentally unsuited to carry through the program of rehabilitation necessary to secure a good result from this

operation. Mold arthroplasty should not be done for them. In many such cases the procedure will fail because of the patient's inertia, which means that it probably is futile to try to gain a satisfactory result.

My second question was, in essence: "Which type of arthroplasty has proved best?" My opinion is that no one type of arthroplasty should be used to the exclusion of all others. We think that mold arthroplasty should be used for patients in whom an adequate femoral neck and head remain after the head has been remodeled, and in whom sufficient bony structure exists for development of a satisfactory acetabulum. When extensive degenerative changes have destroyed most of the femoral head or when aseptic necrosis has caused extensive death of the head, we believe a prosthesis should be used. Again, when long-standing shortening of the neck of the femur exists, as it does in all patients with old Legg-Perthes' disease, it is our opinion that a replacement must be done. It is very difficult to lay down rigid rules on this point. Experience is the best teacher, and those who are experienced will do their best to carry out the proper type of procedure.

Subordinate to the second question was the type of prosthesis to be used. Our experience has led us to believe that, on the whole, plastic prostheses are destined to be replaced by metallic ones. We say this in spite of the fact that the plastic types probably have had more widespread use the world over than the metallic types. But in the literature there are increasing numbers of reports of failure of the plastic types. Undoubtedly, some plastic femoral heads become so worn as time passes that erosion of the bone takes place; others break and crack, so that they must be removed. It is true that in persons of slight build who are relatively inactive wear may not be sufficient to cause trouble.

At the time the preliminary survey on prostheses of the femoral head was conducted by the American Academy of Orthopedic Surgeons<sup>11</sup>, it was found that thirty-seven different types of prostheses were available. More than fifty are available now, so that the very multiplicity of these prostheses indicates widespread dissatisfaction

tion with many of them. We have come to the conclusion that "stem" prostheses, in which fixation of the stem is achieved only in the neck and trochanteric portion of the femur, are less satisfactory than those in which intramedullary fixation is obtained. Of the latter, the Austin Moore type has proved most satisfactory in our hands.

Accurate reports of large series of cases have not yet become available, so that thus far we have very little on which to base an opinion of the relative merits of each type of prosthesis, so far as end results are concerned.

D'Aubigné and Postel<sup>12</sup> reported "late" results obtained from 243 arthroplasties in which acrylic prostheses were used. In this study 20 per cent of the patients were not improved, and it was noted that there was a deterioration of functional results in 20 per cent of cases.

Judet and Judet<sup>13</sup> reported on the end results achieved for 400 patients for whom acrylic femoral heads were emplaced, and whose condition was followed one to five years. In 219 cases of osteoarthritis the results were bad in 17 per cent; in 19 per cent, poor; in 47 per cent, good; and in 17 per cent, excellent. In seventy-three cases of old congenital dislocation of the hip the results were bad in 15.3 per cent of anterior dislocations and in 28.5 per cent of posterior dislocations; fair in 53.8 per cent of anterior dislocations and 35.7 per cent of posterior dislocations; and good in 30.7 per cent of anterior dislocations and 35.7 per cent of posterior dislocations. Results obtained in other types of conditions of the hip were not included in this report.

In a discussion published from the meeting of the British Orthopedic Association<sup>14</sup> the question was submitted, "In the opinion of this house all methods of arthroplasty of the hip have failed to achieve their purpose." The opponents of the proposition seem to have predominated.

In another report on a series of end results Shepherd<sup>8,9</sup> stated that patients for whom cup arthroplasty has been done proceeded to improve for four or five years; at the end of that time she found that 45 per cent had good or excellent results, whereas after five years 54 per cent had poor results.

In this same review it was noted that of those for whom the Judet type of arthroplasty had been done, 42 per cent had good results up to two and one-half years, whereas from two and one-half to three years 52 per cent had poor results.

As times goes on and further experience with these types of procedure is reported, a better understanding of the problem undoubtedly will follow. The survey of the American Academy of Orthopedic Surgeons Committee on Prostheses<sup>15</sup> revealed that a great variety of prostheses have been used, with a variety of complications. In commenting on this material, the chairman of the committee stated that the trend was toward a wider use of the intramedullary type of prosthesis and that non-union, arthritis and aseptic necrosis all are almost universally approved indications for use of a prosthesis. He further stated that although use of a prosthesis for treatment of fresh fractures at any age is increasing, it is a particularly favorable operative procedure for such fractures in the aged.

Our own experiences with prostheses to date has led us to believe that the metallic prosthesis is better than the plastic type and that the intramedullary type is more satisfactory than the stem type.

Coventry<sup>16</sup> reported on 108 prostheses of the femoral head emplaced at the Mayo Clinic from 1951 through 1953. Among his conclusions the following statements seem important. Indications for the use of the intramedullary type of prosthesis are: "a. Bilateral afflictions of the hip in which arthrodesis would be contraindicated. b. Unilateral affections of the hip in which there is lack of viable bone comprising the head or neck of the femur. Avascular necrosis of the femoral head secondary to fracture or dislocation and non-union of the femoral neck are our most common indications at present for the femoral head prosthesis. c. Osteoarthritis and rheumatoid arthritis may often be treated equally well with mold arthroplasty unless there is evidence on radiographic examination or at the time of operation that the head of the femur is avascular or extensively cystic. In such cases we elect to do a prosthetic arthro-

plasty. . . . d. Only fresh fractures of the femoral neck in the very aged or with a poor prognosis . . . should be treated by femoral-head prosthesis. . . ." Stinchfield, Cooperman and Shea<sup>17</sup> have reported on the end results achieved for 105 patients for whom prosthetic replacements had been done. The indications for operation were acute intracapsular fracture of the neck of the femur, avascular necrosis of the head of the femur, non-union of the fractured neck of the femur and osteoarthritis of the hip.

Careful analysis of the results in each group of cases was carried out. The number of cases in which Judet prostheses and Austin-Moore prostheses were used was about the same. In summarizing the results in all groups, the authors noted that good or excellent results had been obtained with Judet prostheses in 64 per cent of cases, and that good or excellent results had been achieved with Austin-Moore prostheses in 72 per cent of cases. The authors further wrote: "Taking into consideration all factors, the over-all result for the entire series of 105 femoral head replacements was 68 per cent of good or excellent results."

The third question which I listed herein was that of whether arthrodesis has a place in the present program of surgery of the hip joint. I would very definitely say that it does. There are many conditions in which this procedure should be used. Among them I would list, in general, severe fracture-dislocations with intrapelvic protrusions, hips in which there is old infection with extensive damage to the soft tissues and deep scarring, severe degenerative arthritis following trauma, particularly in younger men who must do hard work, unilateral deformity from Legg-Perthes' disease or old slipped epiphysis with extensive degenerative changes, and shortening of the neck of the femur, in which reconstruction of the head or replacement is difficult and in which a painless hip is desirable.

In our opinion arthrodesis of the hip for patients of more advanced age is contraindicated because it requires a long period of treatment in bed, with the deleterious effect of lengthy rest in bed on the aged, and because of the difficulty of accomplish-

ing satisfactory arthrodesis for an older person. We believe that arthrodesis is indicated in most cases of tuberculosis in which only one hip is involved, although with the aid of newer methods of chemotherapy and antibiotic treatment, results can be accomplished with more conservative surgical procedures in early tuberculous infection of the hip.

The fourth question was whether or not osteotomy is worth while in the light of present knowledge. The answer depends much on the training a man has had in orthopedic surgery. Many orthopedic surgeons over the world use this procedure frequently.

Aside from the use of osteotomy to correct the position of a slipped capital femoral epiphysis and to correct the position in a flexion-adduction or abduction deformity of an ankylosed hip, our experience has led us to an unfavorable opinion of osteotomy for osteoarthritis of the hip and in most cases of old, unreduced congenital dislocations of the hip. We have seen many patients for whom this procedure was carried out and who failed to obtain a good result. In many instances the deformity and disability which can follow osteotomy have been very difficult to correct, and we have not been very well impressed by the results of osteotomy for ununited fractures.

The fifth question concerned the use of immediate replacement operations for fresh fractures of the neck of the femur. We feel that such procedures should be done only for those aged persons who could not undergo the longer period of disability which would be necessary if nailing and other types of internal fixation were done.

We recognize the fact that when internal fixation fails to produce a satisfactory union, or after the development of aseptic necrosis and the long-standing disability and invalidism caused in such cases, the surgeon may be strongly inclined toward proceeding with a prosthetic replacement at once. On the other hand, the fact must be considered that long-range results from the use of prosthetic replacements are not yet known. Widespread use of this procedure for fresh fractures should be discouraged, except for



patients who are old or who have some complication which would make healing by internal fixation and satisfactory rehabilitation out of the question.

Several brief reports on the experience of various authors with prosthetic devices in acute fractures have appeared, but this experience apparently is so limited that it is not possible to make any definite statement on the basis of it. Godoy Moreira<sup>18</sup> wrote, "In young patients, the acrylic prosthesis is not advisable in recent fractures, except in rare cases of comminuted fractures of the femoral neck, where osteosynthesis and bone graft cannot be performed, or where the joint is already deformed by an arthritic process." He further wrote, "In recent fractures of healthy patients under 65 years, osteosynthesis with bone graft should be the first choice, followed if unsuccessful by the acrylic prosthesis and finally by arthrodesis.

"We think the acrylic prosthesis in recent fractures is used too frequently at present. This is probably due to the apparent simplicity of the technic compared to that of osteosynthesis or bone graft, which need x-rays during the operation. General surgeons who would not dare to perform an osteosynthesis, perform the acrylic operation as an emergency.

"It should again be remembered that in such cases the indication is more important than the technic."

The sixth question I raised was, "What type of secondary procedures should be used when arthroplasty fails?" The answer to this question naturally will vary according to the situation in which we find the patient. If mold arthroplasty has been carried out, but function is not satisfactory, a "revision" of the mold procedure may be done. In some instances in which the acetabulum is not adequate, deepening of the acetabulum and replacement of the mold may result in satisfactory function in the hip. When the femoral head is found to be absorbed beneath the mold, a replacement prosthesis is indicated.

When a stem prosthesis has failed because of either migration of the head or "wobbling" of the stem, replacement by an

intramedullary prosthesis usually is indicated. When infection has developed and recurrent flare-ups or chronic drainage develops, it is our opinion that mold or prosthesis, whichever it may be, must be removed, together with any other foreign material or sequestrum that may be found. The end of the femoral shaft must then be placed in the acetabulum and the leg placed in abduction, and such muscles as are in good condition must be reattached to the femur at the lower level. This Colonna type of reconstruction has helped to salvage a number of hips that seemed pretty hopelessly involved at first glance. Lewis and I<sup>19</sup> reported on fifty-seven such cases, and found "that the condition of more than 90 per cent of the patients was improved by this operation. On the basis of the three factors evaluated, namely stability, relief of pain and mobility, it was observed that four-fifths of the group had improved stability, well over 90 per cent had significant relief of pain and two-thirds had improved mobility after the operation." Arthrodesis may be indicated in some of these cases, but in our experience it is much more difficult to accomplish a sound arthrodesis, and a much longer period of fixation in a cast is required.

The seventh question I raised was, "What of the future of surgery of the hip in view of present-day methods for prevention of deformities of this joint?" While it is more important, of course, for us to find ways and means to improve the function of these disabled hips as we find them now, I also think we would be derelict in our responsibility if we did not consider the possibilities as to the future. Can we, as physicians, do anything to prevent the rather large number of disabling lesions of the hip which we now see? I think the answer is "Yes," and I offer the following in support of such a statement.

We are certainly in a better position today to recognize congenital dislocation of the hip or congenital dysplasia of the hip earlier than ever before, and with more adequate early treatment available now, we ought to obtain better results which should naturally reduce the number of disabling hips in

adult persons from these causes. It is true that practical application of early recognition of such congenital defects is not so widespread as it should be, yet persistent efforts on the part of orthopedic surgeons to disseminate knowledge of the technic of early diagnosis ultimately should acquaint all pediatricians and general practitioners with the problem. This would mean, in turn, that adequate early recognition would be known and applied wherever modern medical methods are practiced.

When an adolescent patient or one in early adulthood is seen with congenital dysplasia which was not recognized in infancy, I am sure that seriously disabling hips of later adult life can be forestalled by an adequate shelving operation of some sort. I am aware that it takes years to prove such a point, but my own experience has convinced me of the importance of recognizing this condition and carrying out some such procedure.

We know that disabled hips caused by pyogenic infections of various sorts have been greatly reduced in number as a result of the use of adequate and proper chemotherapy. Certainly, in the future, we shall see a much smaller number of such hips. The same undoubtedly is true of tuberculosis. In our own experience, early tuberculosis of the hip is now very rare, whereas it formerly was often seen. Very likely, therefore, the hip with an old infective process and draining sinuses or the deformed hip with a quiescent infection will be much less frequently seen than in the past.

Actually, earlier recognition and more adequate treatment of the slipped capital femoral epiphysis seem to be in existence now. These adult patients with disabling conditions of the hip apparently dating from adolescence should be much fewer in the succeeding generations. The same is true of Legg-Perthes' disease, which in the past was the underlying pathologic condition which led to many painful hips of adults. Much can be done, if Legg-Perthes' disease is recognized early, to prevent deformity of the head of the femur which so often occurred in generations past. We believe that recognition and treatment of this condition are now adequate enough to prevent,

in future years, many of the deformities which we are now seeing.

The treatment of fractures of the neck of the femur and of intertrochanteric fractures has undergone a radical change in the past twenty-five years. This is also true of acetabular fractures of various kinds. It is true that there remains much to be desired in the way of improvement in the treatment of these fractures. However, I believe that in the past quarter-century we have gained much knowledge directed toward unquestionable improvement in the treatment of these fractures. More nearly perfect restoration of the position of the fragments of these fractures, with as nearly perfect internal fixation as possible, is highly desirable. Internal fixation often may be beneficially supplemented by external fixation, at least until healing is well on its way.

Careful watching for the early signs of aseptic necrosis or non-union is essential, and so is the need for positive action if such signs appear. To this end we recommend the reading, by all interested, of the presidential address of Dr. James A. Dickson<sup>20</sup> on "The Unsolved Fracture." More care in the treatment of all these fractures should produce better results, and the suggestions made by Dickson in this paper are worthy of consideration by all.

#### Summary

Some of the more pressing questions regarding the present-day status of surgery of the hip joint have been enumerated, and an attempt has been made to answer them.

It is admitted that the rapid development of this field during the past twenty-five or thirty years has led to certain undesirable results, perhaps inevitably so. On the other hand, the many highly useful benefits derived from developments in this field far outnumber and outweigh the undesirable results. Some of these benefits have been described. What remains is for practitioners of the present to point the way toward more imminent attainment of perfection in the use of the already numerous methods of accomplishing improvement and alleviation for the many persons afflicted with these painful and disabling conditions of the hip joint.

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## Iron Metabolism, Iron Deficiency, And Excess Iron\*

Matthew Block, M.D.  
DENVER

*In this authoritative paper one can review the basic physiology of iron metabolism. An adult male not bleeding from a body orifice can only lose one or two mg. of iron per day. The female loses an additional amount during menstruation and pregnancy. In the absence of blood loss and except for rare conditions, iron deficiency cannot exist in the adult. You can, therefore, save your patient economic loss through purchase of unnecessary medication and avoid wastage of dietary iron by not prescribing it unless thorough analysis of the patient indicates an iron deficiency. For those concerned this paper is worth detailed study.*

**I**N NO field of medicine is a knowledge of basic physiology more helpful to the clinician in the solution of his every day

\*Presented before the 53rd annual meeting of the Wyoming State Medical Society at Moran, July 1, 1956. The author is Associate Professor of Medicine, University of Colorado.

problems than in diseases involving the red cell. It is an unpleasant reflection on the profession as a whole to realize that over 95 per cent of the liver extract and B<sub>12</sub> and 70 per cent of the iron prescribed by physicians is wasted. The great majority of these errors would be avoided by a knowledge of

iron metabolism, especially the one basic fact that iron cannot be lost in abnormal amounts from the body except by bleeding to the outside from a body orifice.

### Iron Depots

The average adult has 2,500 cc. of red cells and since each cc. contains one mg. of iron there are 2,500 mg. of iron in circulating red cells. The normal red cell survival is 120 days. Therefore, each day 1/120th of the circulating red cell mass, or 20 cc., must be destroyed as part of the normal senescence of the red cell. Since we remain at a normal level, 20 cc. of red cells must be formed daily. A necessary correlary is that each day 20 mg. of iron is released from hemoglobin and 20 mg. of iron is synthesized with globin and heme to form hemoglobin.

The second major store of hemoglobin is ferritin or tissue iron, normally comprising 800 (female) to 1,200 mg. (male). This iron is in equilibrium with red cell iron and is in a constant state of flux, passing in and out of the tissues just as calcium continually enters and leaves bone. The very small amount of iron in respiratory enzymes and the somewhat larger amount in myoglobin probably do not contribute significant amounts to the daily iron turnover.

### Iron Kinetics

A. Plasma Turnover: The transferrin of plasma, a beta-globulin, is the sole transport mechanism of iron, normally carrying about 100 gamma of iron in 100 cc. of plasma. Since it is normally only a third saturated, transferrin may carry approximately 300 gamma of iron. The transferrin mechanism is unique in that in spite of carrying iron measured in *gamma*, or thousandths of a milligram, it is the sole means of transporting the 20 mg. of iron which daily enters the plasma as a result of normal hematopoiesis and the additional 5 to 10 mg. which enters as a result of transfer of iron from one depot to another.

B. Excretion from the body: There is, in the adult male, in the absence of hemorrhage from a body orifice, only one (possibly two) mg. of daily iron loss from the body. The average female loses from 17-40 mg. in each menstrual cycle so that her yearly iron loss

is approximately twice that of a male or an average of 2 mg. daily. During one pregnancy the female saves 270 mg. ( $30 \times 9$ ) by amenorrhea, but loses a total of 700 mg. (fetus, placenta, hemorrhage), so is really worse off than if menstruating. Twins almost double the loss to the fetus, really a form of external hemorrhage, since the iron lost to the fetus has left the female as surely as if she bled it from out her vagina.

C. Infant: Unlike the adult, the growing child needs more than 1 mg. iron absorption to remain in equilibrium. At birth the human has a hemoglobin of 20 grams. The first three months of neonatal life, due to the low iron content of milk, is a period of negative iron balance, intensified by the increase in red cell volume which parallels increased weight.

If the infant's red cell volume increases from 450 to 900 cc. in three months he needs to absorb 450 mg. of iron to form the hemoglobin for this added red cell volume. Since milk is so poor in iron the baby suffers a drop in hemoglobin; that is, he spreads his hemoglobin through more cells. By halving his hemoglobin, he has iron for twice as many red cells. In other mammalian species various devices are utilized to protect the neonatal from iron deficiency. The milk of the mouse is rich in iron and the pig gets iron from grubbing in the dirt.

### Summary of Physiology of Iron

It may be seen that, except for the growing child and menstruating and pregnant female, there is only need for absorption of 1 mg. of iron daily. There is no means to lose iron in significant amounts except for hemorrhage from a body orifice. The major turnover of iron (20 mg. daily) is that resulting from the destruction and formation of red cells. In addition there is another 5 to 10 mg. daily of iron interchange between the various depots of ferritin as liver, spleen, nodes and marrow.

### Diseases of Iron Metabolism

I would like to emphasize the most important fact in understanding the role of iron in anemia. An anemic adult male, unless bleeding from a body orifice to the exterior, cannot be iron deficient. Put in other words, an anemic patient, except the

special cases of the growing child, the extremely rare cases of decreased absorption and the patient bleeding out of the body, cannot have an iron deficiency since the human has no means of losing iron from the body except for a 1 mg. daily loss which is easily made up by food iron. In the absence of hemorrhage from the body the anemic patient transfers iron from red cells to his tissues. Since he cannot utilize the iron in his own tissues treating with iron will serve only to pile up more iron in the tissues.

A. Iron deficiency: This may be defined as a decrease in the total amount of iron in the body to an amount less than normal for the individual's weight. It is questionable whether iron deficiency not severe enough to cause anemia will cause symptoms. Since iron is used selectively for red cells under ordinary circumstance, any loss of iron as in hemorrhage will result in a transfer of tissue iron to red cells. In this way tissue iron is a reserve from which iron may be drawn for red cell formation.

Iron deficiency anemia is a state in which decrease in body iron is so great as to not only deprive the tissues but also the red cells of iron. This iron deficit may occur only by failure to absorb iron and/or by an increase in loss of iron from the body. The former occurs in growing children where enough iron must be absorbed to keep pace with the expanding red cell volume. In the absence of gastro-intestinal resections, fistulas, diarrhea, a few achlorhydric and pregnant females, and extremely rare nutritional deficits, iron deficiency anemia due to failure of absorption does not exist in the adult. The overwhelming majority of iron deficient adults must lose blood from a body orifice to become iron deficient. Conversely, in the absence of blood loss from the body and except for the rare conditions noted above, iron deficiency cannot exist in the adult. Since the great majority of iron deficient adults are bleeding, the recognition of an iron deficient state by the physician implies not just the treatment of iron deficiency but a relentless search for the source of bleeding. In the absence of an obvious source, the genital and gastro-

intestinal tract in the female and gastrointestinal tract in the male are the sites to investigate. Consequently, the single most important step in tracing the origin of the anemia is the checking of *daily* stools for occult blood.

The physical signs and symptoms of iron deficiency per se are few as opposed to those related to the disease causing the iron deficiency. A smooth tongue, slow nail and hair growth and cracking of the corners of the mouth, and splenomegaly, especially in the infant, are all that are found besides the nonspecific weakness, fatigue and dyspnea due to anemia. In the absence of anemia, weakness, fatigue and dyspnea are not due to iron deficiency. As mentioned before, it is probable that a mild iron deficient state without anemia does not induce clinically significant symptoms.

The peripheral blood is hypochromic, microcytic, with a low reticulocyte count. Examination of the blood smear prior to treatment is most helpful and often is diagnostic, especially in the more severe grades of anemia. The red cells are very pale. Poikilocytosis, especially hand mirror shaped cells and attenuated and target red cells are common. An iron deficiency is extremely rare in the presence of a decrease in white cells and platelets, both of which may be estimated from the smear. Other more academic tests are the complete absence of iron in sections of marrow, a combination of low serum iron and high iron binding capacity, and rapid clearance of radio iron from plasma and rapid uptake into red cells.

Treatment of iron deficiency requires iron only. There is no evidence, in spite of the drug company brochure or sales representative, that cobalt, liver, HCl, vitamins including B<sub>12</sub> or anything else will increase the absorption or utilization of iron. Vitamin C is a possible exception. In the adult, implicit in the treatment of iron deficiency is the need to locate the source of blood loss. Correction of anemia by iron is less important.

B. Excess iron: Without decrying the importance of iron deficiency as a clinical entity it is necessary to emphasize that the



great majority of anemic adult patients encountered in routine hospital practice are not iron deficient since bleeding from out a body orifice is not the most common cause of anemia. For example in the anemia of infection, nephritis, and malignancy there is no blood loss to the exterior. These anemias are caused by a decrease in red cell formation, excessive red cell destruction or a combination of both. As the total number of red cells decreases, iron is transferred to tissue stores as ferritin or hemosiderin so that iron therapy serves no useful function and may be harmful.

Since this type of anemia does not respond to anything except treatment of the primary disease or temporarily to transfusion, the latter is often used. Each transfusion supplies about 200 mg. of iron which cannot be lost from the body, so aggravating the accumulation of iron in tissues. In rare

cases a secondary hemochromatosis may develop.

#### Summary

Knowledge of iron metabolism is necessary for the rational treatment of an anemia. The most important facet of iron metabolism is the inability of the human adult to lose significant amounts of iron except by blood loss from the body. Consequently, implicit in the treatment of iron deficiency in the adult is the need to locate the source of bleeding. Iron, and iron only, is needed to treat iron deficiency.

Anemia in the majority of adults is not due to blood loss from the body. Consequently there is no iron loss. As the total number of red cells decreases the iron from their hemoglobin is transferred to tissue stores. Therefore, there is no rationale to the treatment of these patients with iron.

## *Aberrant Regeneration Of Oculomotor and Facial Nerves\**

Paul Wetzig, M.D.

COLORADO SPRINGS, COLORADO

**W**HEN there is paralysis of a peripheral nerve three things may occur, namely complete regeneration of the nerve, partial regeneration of the nerve or no regeneration of the nerve with permanent paralysis. In the case of oculomotor and facial nerves, there is an exception, in which there is a so-called misdirected regeneration of the nerve fibers. This is known as the Aberrant Regeneration Phenomenon, and is peculiar to these two nerves.

With injury to a peripheral nerve and subsequent death of the axons there is degeneration of the fibers to the first nucleus. If the nerve is to regenerate there is a growth of axons through the neurolemma

sheath to the distal portions of the nerve. If the neurolemma sheath is intact this occurs in an orderly fashion with the exception of the third and seventh nerves. In these structures there appears to be an overabundance of regeneration of fibers and they may be misdirected into any of the peripheral neurolemmal sheaths with subsequent derangement of the original function of the structure innervated.

The oculomotor nerve supplies the levator muscle, which elevates the lid, the superior rectus muscle, which primarily elevates the eyeball, the medial rectus muscle, which primarily adducts the eyeball, the inferior rectus muscle, which elevates and intorts the eyeball. The two intrinsic muscles supplied are the ciliary muscle, which serves the accommodative mechanism of the eye and

\*Presented at the Annual Session of the Colorado State Medical Society in Estes Park, September, 1956.

the sphincter of the pupil, which constricts the pupil. When there is injury and subsequent misdirection of the fibers so that they do not enter their original nerve sheaths, there may be bizarre eye movements, as well as pupillary movements.

The motor portion of the facial nerve supplies the so called expression muscles of the face, so that again, when there is misdirection of nerve fibers to the neurolemmal sheaths various bizarre facial movements are seen. These must be differentiated from the involuntary spasmodic contractions following some cases of facial paralysis.

The end result of the misdirected nerve fibers is completely unpredictable and is best illustrated by specific examples in the following cases:

Mrs. C. W., 35-year-old white female, was injured in an automobile accident in 1951, sustaining a complete paralysis of her right oculomotor nerve. Three months following the injury she began to have aberrant regeneration of this nerve, characterized as follows. Inability to elevate or depress the eye, and adduction of the globe on attempted inferior gaze. There was an upshot of the eyelid on adduction of the eye. This phenomenon is known as the pseudo Graefe phenomenon, which is to be differentiated from the Graefe phenomenon or lid lag associated with thyrotoxicosis. The pupil was fixed to both light and accommodation. On straight forward gaze there was an apparent ptosis and she had intractible diplopia in all fields of gaze.

Mr. L. C., 50-year-old white male, was well until September, 1946, when he slipped on a bar of soap, striking the back of his head. He subsequently developed headache, then loss of consciousness, was hospitalized and on the 12th day after injury a large subdural hematoma was evacuated from the right temporoparietal area. He had a stormy postoperative course, but on recovery there was a complete bilateral oculomotor paralysis. He subsequently developed aberrant regeneration of both oculomotor nerves, characterized by inability to elevate or depress either eye. There was marked elevation and upshoot of the lid on adduction of the eye,

elevation of the lid on inferior gaze and ptosis on abduction of the eye. There were no pupillary signs.

Mrs. R. S., 31-year-old white female, had a left facial paralysis in 1943, which was probably on the basis of multiple sclerosis. She subsequently developed aberrant regeneration of the facial nerve, characterized by closure of the left eye on smiling and drawing in of the left angle of the mouth on closure of the eyes.

Mr. G. L., 63-year-old white male, had a bilateral facial paralysis in 1946, cause undetermined. He was given the usual physiotherapy measures and subsequently developed aberrant but symmetrical regeneration of both facial nerves. This was characterized by contractures of the orbicularis oris and platysma on forcible closure of the eyes and forcible closure of his eyes on attempting to open his mouth. There were also contractures of the platysma and orbicularis oris on upward gaze when the frontalis muscle is stimulated in an attempt to open the eye.

Mrs. L. W., 30-year-old white female, had bulbar poliomyelitis in 1953 with paralysis of the right facial nerve and the left oculomotor nerve. There was almost complete recovery, but fleetings signs of aberrant regeneration persisted in that on forcible closure of her eyes there was an indrawing of the right corner of her mouth, and on adduction of the left eye there was an upshoot and elevation of the eyelid. These signs were fleeting, but nevertheless characteristic of aberrant regeneration phenomenon.

### Summary and Conclusion

Five cases of aberrant regeneration of the oculomotor and facial nerve are presented. The cause is felt to be a misdirection of the nerve fibers on regeneration. The result is permanent. Treatment of the oculomotor nerve is directed toward elimination of diplopia on a straight forward gaze.

### REFERENCES

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2. Walsh, Frank B.: *Clinical Neuro Ophthalmology*. Published by Williams and Wilkins, 1947.
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## PROGRAM

## ORGANIZATION

# New Mexico Medical Society 75th Anniversary Annual Session

MAY 15, 16, 17, 1957

SANTA FE, NEW MEXICO

Convention Headquarters: La Fonda Hotel

### GENERAL INFORMATION

Registration Desk: Fireplace Lounge.

Open May 15, from 9:00 a.m. to 5:00 p.m.;

Open May 16, from 9:00 a.m. to 5:00 p.m.

Open May 17, from 9:00 a.m. to 5:00 p.m.

Registration Fee: Members and Guests, \$20.00. Auxiliary Members, Nurses, Medical Students, Residents and Interns may register without fee.

Technical Exhibits: All Technical Exhibits will be located in the Santa Fe and Coronado Rooms, La Fonda.

Scientific Exhibits: All Scientific Exhibits will be located in the North Gallery, Museum of New Mexico.

Meeting Place for House of Delegates: May 14, First Session, 1:30 p.m., St. Francis Auditorium; May 15, Second Session, 8:30 a.m., St. Francis Auditorium.

Meeting Place for Scientific Sessions: St. Francis Auditorium, Art Gallery, Museum of New Mexico.

### SCIENTIFIC PROGRAM

#### Wednesday Afternoon, May 15

Session Chairman—Stuart W. Adler, M.D., President, New Mexico Medical Society

1:30—Invocation: Reverend Henry F Seaman, Church of the Holy Faith, Santa Fe.

Welcome: Leo T. Murphy, Mayor, Santa Fe.

Greetings: R. C. Derbyshire, M.D., President, Santa Fe County Medical Society.

Inaugural Address: Samuel R. Zeigler, M.D., President, New Mexico Medical Society. Subject: "This Changing Environment."

2:15-3:15 — "Lupus Erythematosus" — I. Snapper, M.D.

3:15-3:45—Intermission.

3:45-4:45—Clinical Pathological Conference.

7:00—Stag Smoker and Buffet, for Physicians and Exhibitors, La Posada. Dinner for the Ladies, Bishop's Lodge.

#### Thursday Morning, May 16

Session Chairman: Lewis M. Overton, M.D. Secretary-Treasurer, New Mexico Medical Society

8:00-9:00—Movies.

9:00-10:00—"The Indiscriminate Use of Contrast Media." Philip Hodes, M.D.

10:00-10:30—Intermission.

10:30-11:30—"The Role of Insulinase and Insulinase Inhibitors in the Etiology and Treatment of Diabetes Mellitus." I. Arthur Mirsky, M.D.

11:30-12:30—"Aids in the Diagnosis of Tubal Pregnancy." James R. Willson, M.D.

#### Thursday Afternoon, May 16

Session Chairman: James C. Sedgwick, M.D. Vice President, New Mexico Medical Society

12:30-2:00—Organization Luncheons

2:00-3:30—Panel Discussion. Subject: "Gastrointestinal Bleeding." Moderator:

(Continued on Page 356)

**GUEST SPEAKERS**

New Mexico  
Medical Society

75th ANNIVERSARY  
ANNUAL SESSION



**WILLIAM P. LONGMIRE, M.D.,** *Professor of  
Surgery*  
University of California at  
Los Angeles School of Medicine  
Los Angeles, California



**PHILIP HODES, M.D.,** *Professor of  
Radiology*  
University of Pennsylvania School of Medicine  
Philadelphia, Penna.



**LAUREN V. ACKERMAN, M.D.,** *Professor of  
Surgical Pathology and Pathology*  
Washington University School of Medicine  
St. Louis, Missouri



**I. ARTHUR MIRSKY, M.D.,** *Professor of Surgery and Chairman of the Department of Clinical Sciences*  
University of Pittsburgh School of Medicine  
Pittsburgh, Penna.



**JAMES R. WILLSON, M.D.,** *Professor and Chairman of the Department of Obstetrics & Gynecology*  
Temple University School of Medicine  
Philadelphia, Penna.



**THEODORE C. PANOS, M.D.,** *Professor of Pediatrics*  
University of Texas Medical School  
Galveston, Texas



**I. SNAPPER, M.D.,** *Director of Medical Education, Beth-El Hospital*  
State University College of Medicine  
at Brooklyn, Brooklyn, N. Y.



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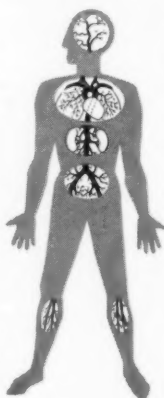
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\*REGISTERED  
TRADE MARK

(Continued from Page 353)

Philip Hodes, M.D. Participants:  
Drs. Ackerman, Longmire, Mirsky,  
Panos and Snapper.

3:30-4:00—Intermission.

4:00-5:00—Clinical Pathological Conference.

7:00—Cocktails and Dinner Dance, La Fonda. Obtain tickets at Reservation Desk, \$7.50 per person. (Formal dress optional).

### Friday Morning, May 17

Session Chairman: R. C. Derbyshire, M.D.  
President, Santa Fe County  
Medical Society

8:00-9:00—Movies.

9:00-10:00—"Practical Problems in Surgical Pathology." Lauren V. Ackerman, M.D.

10:00-10:30—Visit Exhibits.

10:30-11:30—"The Nephrotic Syndrome." Theodore C. Panos, M.D.

11:30-12:30—"The Management of Diverticulitis of the Colon." William P. Longmire, M.D.

12:30-2:00—Organization Luncheons.

### Friday Afternoon, May 17

Session Chairman: Samuel R. Ziegler, M.D.  
President, New Mexico Medical Society

2:00-3:30 — Panel Discussion. Subject:  
"Complications of Diabetes Mellitus." Moderator: Isadore Snapper,  
M.D. Participants: Drs. Longmire,  
Mirsky, Panos and Willson.

### ORGANIZATION LUNCHEONS

New Mexico Obstetrical and Gynecological Society—Thursday, May 16, 12:30 p.m., New Mexican Room, La Fonda.

New Mexico Orthopedic Society—Thursday, May 16, 12:30 p.m., La Posada.

New Mexico Pediatrics Society—Friday, May 17, 12:30 p.m., La Posada.

Association of Radiologists and Pathologists—Friday, May 17, 12:30 p.m., New Mexican Room, La Fonda.

Trudeau Society—Friday, May 17, 12:30 p.m., La Posada.

(Continued on Page 358)

“À  
VOTRE  
SANTÉ”

(To Your Health)

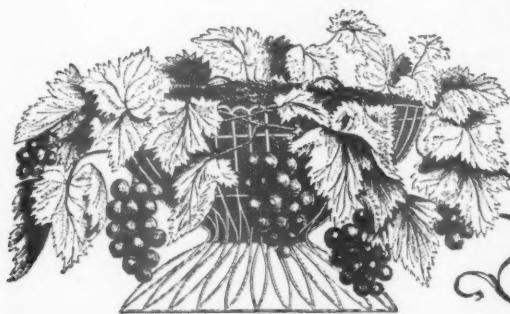
In any language, the traditional toast to good health takes on a meaning of more than passing significance when wine is used for its established physiological effects.

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(Continued from Page 356)

American College of Surgeons—Organizational Meeting—Thursday, May 16, 12:30 p.m., La Posada.

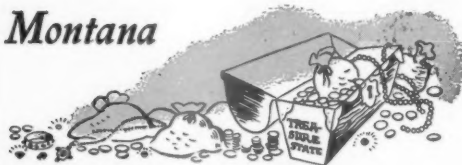
The New Mexico Heart Association will hold a scientific meeting in Santa Fe, May 17-18, 1957, at St. Francis Auditorium (Art Museum).

Friday, May 17, 8:00 p.m.—"The Artificial Kidney." W. J. Kolff, M.D., Research Division, Cleveland Clinics.

Saturday, May 18, 9:00 a.m.—Symposium on Coronary Artery Disease.

2:00 p.m.—Symposium on Artificial Heart. Guests: Denton A. Cooley, M.D., Baylor University; W. J. Kolff, M.D. Three others to be announced.

## Montana



### WESTERN MONTANA MEDICAL-SURGICAL CONFERENCE

The Western Montana Medical Association invites all physicians in this region to attend the 1957 Western Montana Medical-Surgical Conference, Saturday, June 29, at the Florence Hotel, Missoula.

Principal speakers will be Dr. William R. Christensen, Professor of Radiology, University of Utah College of Medicine, and Dr. Lester R. Dragstedt, Professor of Surgery, University of Chicago School of Medicine. Other Montana doctors will cooperate in providing a program of interest to physicians in all fields of practice. Topics to be considered include the following:

Pathogenesis and Treatment of Gastric and Duodenal Ulcer.

The Problem of the Solitary Pulmonary Nodule.

Anesthesiology.

Congenital Heart Disease.

Neurosurgical Relief of Intractable Pain.

Radiation Safety in the Doctor's Office.

Flat Feet.

The program has been authorized for eight hours of credit by the American Academy of General Practice.

Visiting wives will be entertained during the afternoon by the Woman's Auxiliary.

The meeting will be followed by a cocktail hour at 5:30 and a dinner dance at 6:30 p.m.

ROCKY MOUNTAIN MEDICAL JOURNAL

# Utah



## THE NINTH ANNUAL MEETING OF THE UTAH CHAPTER, AMERICAN ACADEMY OF GENERAL PRACTICE

The Utah Chapter, American Academy of General Practice, is pleased to announce the Scientific Program of the Ninth Annual Meeting to be held April 12, 13, 1957.

Place: Hotel Utah, Salt Lake City, Utah.

Scientific Program: The following doctors have been obtained as guest speakers for a symposium on Office Practice:

C. A. Bunde, M.D., Associate in Pharmacology, Indiana University School of Medicine, Indianapolis, Indiana.

Louis A. Buie, Sr., M.D., Emeritus Professor of Proctology, Mayo Foundation Graduate School, Rochester, Minnesota.

Leslie V. Dill, M.D., Associate Professor of

Gynecology, Georgetown University, Washington, D. C.

Henry J. Dixon, M.D., Clinical Professor and Head of the Department of Psychiatry, University of Oregon Medical School, Portland, Oregon.

Peter H. Forsham, M.D., Associate Professor of Pediatrics and Medicine, University of California, San Francisco, California.

George C. Griffith, M.D., Professor of Medicine, Coordinator of Cardiovascular Instruction, University of Southern California, Los Angeles.

Norman Jolliffe, M.D., Director of Nutrition Clinics of the City of New York; Assistant Professor of Nutrition, Columbia University; Assistant Professor of Preventive Medicine, New York University, New York City.

Irving H. Leopold, M.D., Professor of Ophthalmology, Graduate School of Medicine of the University of Pennsylvania, Philadelphia, Penna.

Luncheon Speaker: Mr. W. E. Syers, Consultant on Business Management and Public Relations to the Texas Medical Association, Austin, Texas.

Banquet Speaker: John S. DeTar, M.D., National President, American Academy of General Practice, Milan, Michigan.

Entertainment: Banquet (informal) with the ladies, Friday, April 12, 7:15 p.m., Hotel Utah.



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HARRIET HULL SMITH, M.D.  
JOHN W. LITTLE, M.D.



## WRITE FOR OUR ILLUSTRATED BOOKLET

for APRIL, 1957

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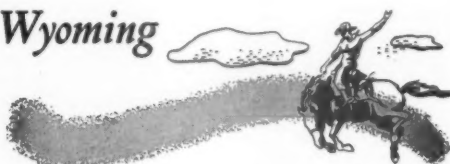
Luncheon for doctors and wives, Friday. Entertainment for ladies.

Registration: No fee for registration. Approved for postgraduate credit, category I, for members of A.A.G.P.

These meetings are open to all members of the medical profession. We invite you and your wife to attend this outstanding event.

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## Wyoming



### Official Call

To the Officers, Delegates, Committeemen and Members of the Wyoming State Medical Society, Greetings:

The Fifty-Fourth Annual Meeting of the Wyoming State Medical Society will be held at Jackson Lake Lodge, Moran, Wyoming, Saturday and Sunday, June 15 and 16, to be followed by the Rocky Mountain Medical Conference on Monday, Tuesday, and Wednesday morning, June 17, 18, 19, 1957.

The House of Delegates will convene at 2:00 p.m., Saturday, June 15, as shown in this program, and subsequently as ordered by it.

The General Scientific Assembly will convene at 9:00 a.m., Monday, June 17, and subsequently according to the program of the Scientific Program Committee.

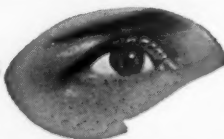
JOSEPH HELLEWELL, M.D.,  
President.

Attest:

ARTHUR R. ABBEY,  
Executive Secretary.

Cheyenne, Wyoming,  
March 13, 1957.

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## Medical School Notes



### Postgraduate Courses

#### VASCULAR SURGERY July 8-19, 1957

This course in operative technic is designed for the doctor who must treat acute injuries and finds himself confronted not infrequently with arterial and venous trauma. Actual operative instruction in vascular anastomoses and grafting in the experimental laboratory will be stressed. In addition, a review of the current status and potential of vascular surgery in general will be given.

Registration in the course will be limited to six physicians. Any doctor who has unlimited surgical privileges in the hospital in which he practices will be eligible to apply. The tuition will be \$500.00.

For further information, write to Dr. Henry Swan, Department of Surgery, University of Colorado Medical Center, 4200 E. Ninth Avenue, Denver 20, Colorado.

#### CLINICAL HEMATOLOGY June 17-22, 1957

An intensive six-day course in Clinical Hematology designed especially for internists and pathologists will be offered at the University of Colorado School of Medicine June 17-22, 1957. Because actual laboratory technics will be emphasized, registration in the course will be limited to twelve physicians.

The prime purpose of the course is to correlate laboratory technics, especially those available in the average hospital, with the clinical approach to the patient. Major emphasis will be placed upon microscopic studies with the use of smears and sections of the blood and blood forming tissues as an aid in the diagnosis and management of hematologic problems. Each participant will be loaned a set of microscopic slides and should provide his own microscope (rental student microscopes will be available if necessary).

The course will be given by Dr. Matthew Block. He will be assisted by Dr. Kurt von Kaulla, who will provide one-half day instruction on the newer knowledge of blood coagulation and demonstrations of the more refined coagulation tests.

The tuition fee for the course will be \$100.00. Further information and a detailed program may be obtained by writing to Office of Postgraduate Medical Education, University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, Colorado.

for APRIL, 1957

## P.A.F. pH<sup>4</sup>

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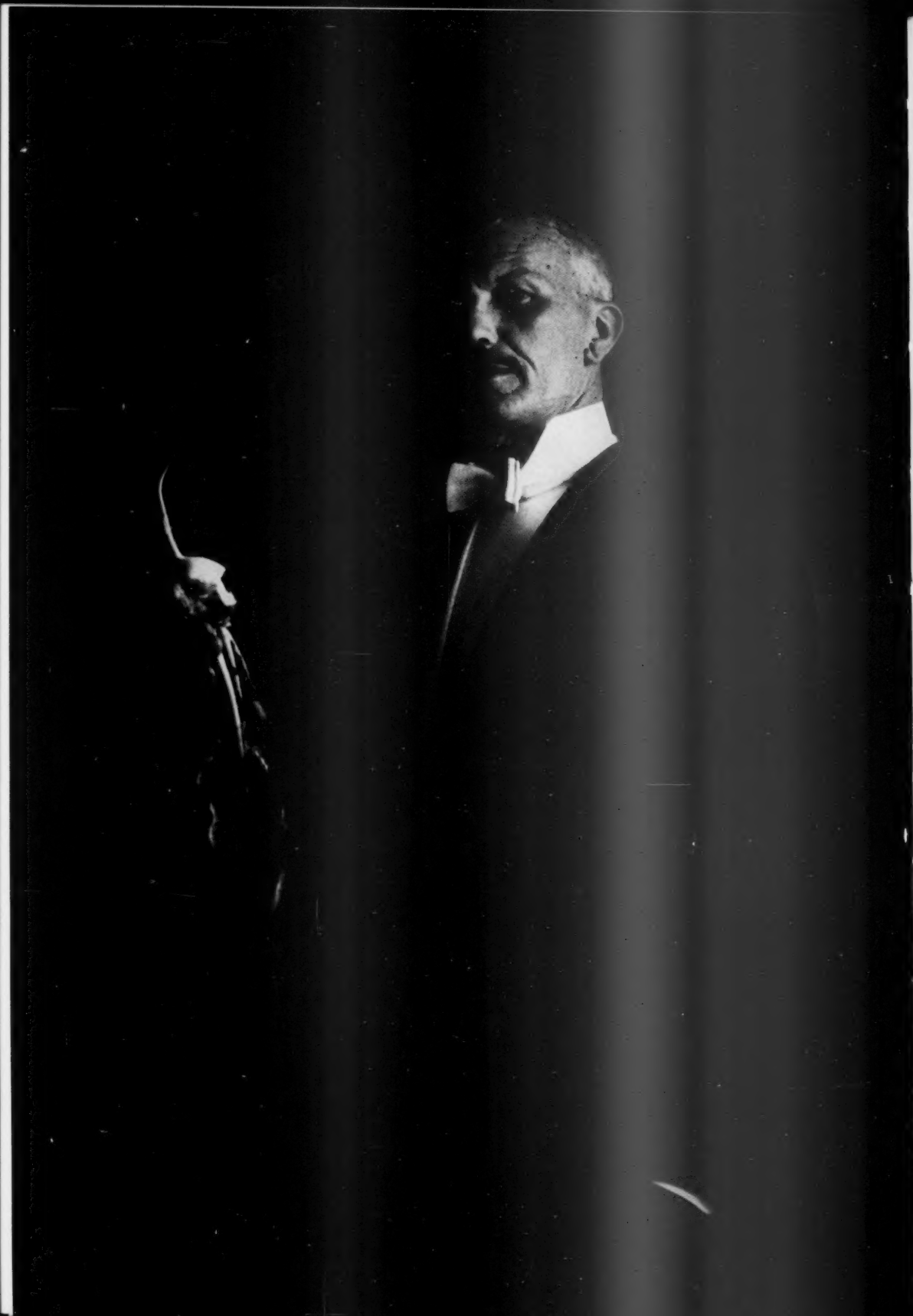
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## Colorado



### FREE CARDIAC SURGERY PROGRAM

National Jewish Hospital at Denver is expanding its cardiovascular program. It will consider applications for admission in behalf of patients suffering from cardiovascular defects amenable to surgical intervention, including mitral and aortic stenosis, congenital cardiac anomalies, etc. Definitive diagnosis is not necessary prior to admission, inasmuch as the hospital has a completely equipped cardio-pulmonary physiology laboratory for this purpose. Patients are accepted without respect to race, religion or national origin, and without charge. Only those unable to pay for private care are eligible. Periodic reports are made routinely to the referring physician and the patient is directed to report to him after discharge. Inquiries should be sent to Medical Director, National Jewish Hospital, Denver 6, Colorado.

### ELECTIONS

Your State's Executive Office appreciates being notified of the results of your component

society elections. Not only can State Secretaries thus keep their records up to date, but they are better able to route inquiries to the appropriate component society officer.

### Obituaries

#### DR. A. D. ATWOOD

Dr. A. D. Atwood, second oldest physician in Denver, died on February 25, 1957, at St. Anthony's Hospital. He had been retired some ten years from active practice. He was born in Wattertown, Conn., on April 18, 1870, was graduated from Gross Medical College, now a part of the University of Colorado. Recently he was awarded a certificate of recognition from the University of Colorado for having practiced medicine for fifty years. He also received a similar award for fifty years' meritorious service from the Denver Medical Society. Prior to his retirement he served on the staff of St. Anthony's Hospital. He is survived by a daughter, Mrs. Kent S. Whitford of Tulsa, Oklahoma, a brother and two sisters, all of Connecticut, and several nieces and nephews.

#### DR. H. WILLIAM STUVER

Dr. H. William Stuver, Treasurer of the Denver Medical Society for thirty-two years and recent recipient of the Society's Award of Merit, died on March 4, 1957, at Mercy Hospital. He was born in Johnstown, Pa., on October 19, 1879, and was one of the survivors of the famous "Johnstown flood." He graduated in 1902 from

(Continued on Page 368)

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the Philadelphia College of Pharmacy and Colorado University Medical School in 1913. He married Addie Archer in 1918. He worked as a pharmacist, taught at the D. U. School of Pharmacy, was city physician in 1925 and in charge of Steele Hospital for contagious diseases for several years. He was physician for the Union Pacific Railroad for a number of years. He was a combat surgeon during World War I. A 33rd degree Mason, he was past master of Albert Pike Lodge No. 113. Surviving are his wife, two daughters, Mrs. Edna Bugdanowitz and Mrs. Ruth Murtaugh of Denver, and four grandchildren.

#### DR. JOHN C. WIEDENMANN

Dr. John C. Wiedenmann, Englewood practitioner for twenty-six years and former city physician there, died on January 12, 1957, at Porter Hospital after a long illness. He was born in Hepler, Kansas, on June 14, 1899. Following his graduation from Kansas State Teachers College, where he was an all-state quarterback in his senior year, he taught school for a number of years. He entered the service during World War I and on his return entered medical school at Johns Hopkins University, following which he served internships at Baltimore City Hospitals and Saint Luke's Hospital in Denver. He was past President of the Arapahoe County Medical Society and past District Governor of Rotary International; he was also a member of the board of trustees of the Arthritis and Rheumatism Foundation. Surviving are his wife, Mary; a brother and four sisters.

#### DR. LEONARD G. CROSBY

Dr. Leonard G. Crosby, pioneer Denver radiologist, died on February 17, 1957, at St. Joseph's Hospital. He was born in New Auburn, Minnesota, on January 26, 1873. He studied medicine at Hamlin University, Minneapolis, Minnesota, and at the University of Illinois where he graduated in 1899. He married Katherine Waterman in 1897. She died several years later. In 1931 he married Helen Root, who died last Christmas Day. Dr. Crosby came to Ouray, Colorado, in 1902 and maintained a general practice there until 1914, when he came to Denver to work with Dr. George Stover in the practice of radiology and later was associated with the late Dr. Samuel Childs. He was a member of St. Mark's Episcopal Church, a fellow of the American College of Radiology, member of the Colorado State Medical Society, member and past President of the Denver Medical Society, Radiological Society of North America, Rocky Mountain Radiological Society, Colorado Radiological Society and the Denver Club. He served as Captain in the Medical Corps in World War I. He was a member of the staffs of St. Joseph's, Colorado General, Denver General, St. Luke's and Mercy Hospitals. Surviving are two nieces and three nephews.

## ABSTRACT OF MINUTES\* HOUSE OF DELEGATES of the COLORADO STATE MEDICAL SOCIETY

Interim Session, Feb. 19-21, 1957

Lincoln Room  
Shirley-Savoy Hotel  
DENVER, COLORADO

### FIRST MEETING

Tuesday, February 19, 1957

Vice Speaker Frank B. McGlone, M.D., Denver, called the House to order at 4:00 p.m., and at the request of Speaker Carl W. Swartz, M.D., Pueblo, presided until after Dr. Swartz had given his Speaker's Address, and recognized Dr. C. C. Wiley, Chairman of the Committee on Constitution, By-laws and Credentials, who presented the Committee's report as printed in the House of Delegates Handbook and amended it by recommending the seating of Dr. J. S. Baxter, of Aspen, Garfield County Medical Society, to act as substitute delegate for Dr. Robert C. Lewis, Jr., who was ineligible to serve as he was a present member of the Grievance Committee, remarking that Garfield County would not have an alternate unless further action was taken; and stated that the Committee had no authority to seat a delegate from Morgan County because that Society's annual report had not been filed.

Dr. Wiley further recommended the seating of Dr. L. S. Sampson as alternate for Dr. William R. Sisson of Otero County; Dr. R. W. Watson to serve as a delegate from San Juan Basin Medical Society, to replace either the delegate or alternate, which one was not known at the time.

Eighty-two accredited delegates (more than a quorum) answered roll call.

On motion the printed report of the Credentials Committee, as amended, was accepted.

On motion of Delegate Tom M. Parry, Clear

\*Condensed from the shorthand and sound recorded record of H. E. Dennis, Certified Shorthand Reporter. Reports referred to but not reproduced herein were distributed to all members of the Third Interim Session, in the printed "House of Delegates Handbook" or were distributed to all members of the House in mimeographed form. Copies of all such reports are on file in the Executive Office of the Society, and with the Secretary of each component society, available for study by any member of the Society.

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Creek, Dr. R. B. Richards of Fort Morgan was seated as the designated delegate from Morgan County Medical Society.

#### Address by Speaker

Vice Speaker McGlone introduced Speaker Swartz.

Speaker Swartz: "I just want to remind you that this is the body that represents the entire group of the Colorado State Medical Society membership. We are here to consider business which has been carried on since our fall meeting, as carried out by our elected officers and the committees. Their reports have been printed and are in the Handbook and there will be several supplements offered this afternoon and these will be passed on, of course, to reference committees for final action.

"May I remind you of your privilege and duty to appear before these reference committees to express your own views and those of the members whom you represent. I would like to call attention to one change in reference committee assignments. On page 12 of the Handbook you will find the report of the Board of Councilors which contains some material which is very similar to that appearing in the report of the Industrial Relations Committee, and that will be referred instead to the Reference Committee on Legislation and Public Relations."

A motion for the adoption of the Speaker's recommendations regarding reference committees, and approval of his address as a whole, carried without dissent. Speaker Swartz then assumed the chair.

(Continued on Page 372)

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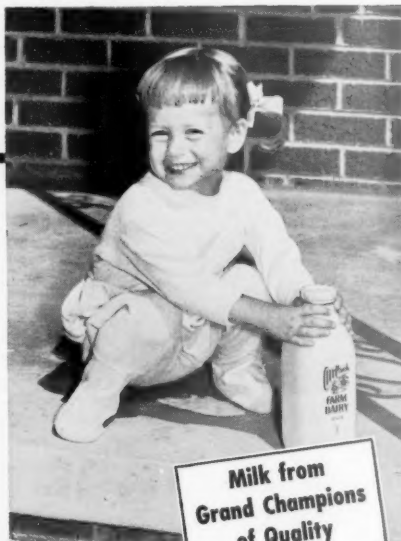
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# NEW...

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1. *Prednisolone buffered*—the newest and most potent of the "predni-steroids" for prompt relief of joint pain and arrest of the destructive inflammatory process.

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Tolerance to this combination is good because there is little likelihood of sodium retention, potassium depletion or gastric distress with buffered prednisolone, and meprobamate rarely produces significant side effects in therapeutic dosage.

An additional important therapeutic benefit, often overlooked, stems from the tranquilizing action of meprobamate. This component of MEPROLONE relieves mental tension and anxiety so often manifest in arthritics, making them more amenable to other rehabilitation measures.

**INDICATIONS:** A wide variety of conditions, in which four symptoms predominate: a) inflammation b) muscle spasm c) anxiety and tension d) discomfort and disability; i.e., rheumatoid arthritis, rheumatoid spondylitis (Marie-Strümpell disease), Still's disease, psoriatic arthritis, osteo-

Therapeutic benefits of MEPROLONE compared with traditional anti-

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Salicylates	✓	✓			
Muscle relaxants			✓ <sup>1</sup>		
Tranquilizers				✓ <sup>1</sup>	
Steroids	✓	✓			
MEPROLONE	✓	✓	✓	✓	

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arthritis, bursitis, synovitis, tenosynovitis, myositis, spondylitis, fibromyositis, neuritis, acute and chronic low back pain, acute and chronic primary and secondary fibrositis and torticollis, intractable asthma, respiratory allergic and inflammatory eye and skin disorders (as maintenance therapy in disseminated lupus erythematosus, periarteritis nodosa, dermatomyositis and scleroderma).

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3. ANXIETY AND TENSION
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(Continued from Page 369)

On motion regularly seconded and carried without dissent, minutes of the 86th Annual Session, held September 5, 6, 7, and 8, 1956, at Estes Park, Colorado, as published in abstract in the November, 1956, issue of the Rocky Mountain Medical Journal, were adopted without correction.

On motion the House voted that the press not be granted its request to attend sessions of the House.

Speaker Swartz referred all reports of the Board of Trustees, as supplemented (see below), by Dr. George R. Buck, President and Chairman of the Board of Trustees, verbally and by previously-mimeographed supplemental reports, to the Reference Committee on Board of Trustees and Executive Office, except those parts of the Trustees' reports relating to the UMWA, which were referred to the Reference Committee on Legislation and Public Relations.

#### **Supplemental Report of the Board of Trustees**

Dr. Buck reported as follows:

"At a meeting of the Board of Trustees held at 12 o'clock today the Board approved the recommendation of the Finance Committee to retain a typographer and graphic arts consultant for complete modernization of the Journal.

"After considering carefully the excellent financial condition of the Journal, the Board moved to raise the present reserve limit for this year from \$1,000 to \$3,000. The Board approved the recommendation of the Finance Committee to transfer the accumulated surplus in the Journal reserve fund to a special savings account which would carry an interest return."

Speaker Swartz introduced guests: Dr. Stuart W. Adler, President of the New Mexico Medical Society, and Mr. Ralph Marshall, Executive Secretary of that Society.

Dr. Robert T. Porter, Chairman, announced there was no supplement to the printed report of the Committee on Industrial Relations, a subcommittee of the Board of Trustees.

Dr. Osgoode S. Philpott, a member, announced that there was no supplement to the printed report of the Board of Councilors, as yet.

The printed report of the Board of Councilors was referred to the Reference Committee on Professional Relations.

Dr. Duane F. Hartshorn, Chairman, stated there was no supplemental report by the Grievance Committee. The printed report of the Grievance Committee was referred to the Reference Committee on Professional Relations.

#### **Report of President**

A personal report was delivered by President George R. Buck, as follows:

"I still would like to have the membership of this Society develop their own insurance company to purvey to the membership of the Society professional liability insurance.

"The second part of the report to me is even more important because it has reference to free-

dom. Freedom is a thing that is not given to us; we fight, we bleed, we die for it.

"You will be confronted as a House later on this evening with three resolutions that have to do with freedom of choice of physician. I hope that if you believe in the principle of freedom you will see your way clear to support these resolutions. I believe that we are at a turning point in the existence of medical practice in this state, if not in the nation. I believe the issue can no longer be begged, but must be joined. I personally would rather join an issue and go down to defeat in honor than never to join an issue and live in dishonor."

Executive Secretary Sethman stated there was no supplement to his printed report.

Previous action of the House had directed that the report of the Delegates to the American Medical Association be presented before the general meeting. This was referred automatically to the Reference Committee on Professional Relations.

There was no supplement to the report of the Foundation Advocate by Dr. Walter W. King.

#### **Reports of Committees**

Vice Speaker McGlone reverted to Reports of Committees and Dr. Robert P. Harvey presented the following supplemental report of the Committee on Prepayment Services, a subcommittee of the Standing Committee on Medical Service, which the House last fall asked to perform a special study, which was referred to the Reference Committee on Professional Relations.

#### **Prepayment Service**

The following is a supplemental report as issued by your Committee on Prepayment Services, which desires to report on its activities since the Annual Session in September of 1956, and will concern itself entirely with the subject of the Industrial Accident Commission Radiology Fee Schedules. At a time when unity of all individuals and groups of the profession are most needed, this report must necessarily deal with aspects of a problem which indicates that fundamental cohesion or unity is more than somewhat lacking. If there be anything this Committee would most like to avoid it is that of initiating an intramural difference of opinion; actually, however, that difference of opinion has been operating for the past three or more years; the time is long past when those differences should have been resolved and the problem at issue settled.

Your Committee strongly urges that we all start thinking and acting for the common good of both the public and the profession as a whole. If we cannot demonstrate the intelligence to settle our own differences, they will be settled by hands other than our own.

Your Committee feels that a good deal of the feeling generated by this problem has been basically caused by a lack of basic knowledge and understanding concerning the other groups' respective problems and an inability to see other than their own particular domain.

This is not a problem which is conducive to "winning friends and influencing people." Quite the reverse. Past Chairmen of this Committee or Committees have been subjected to an unwarranted amount of criticism verging at times



on the point of abuse; the present Chairman feels this criticism has been unjust and further, feels that no member of this Committee is entitled to the criticism granted past members of previous Committees earnestly attempting to solve this problem. As a practicing member of a specialty which has but few dealings with the Industrial Accident Commission, he also wonders why he was selected to head the present Committee; perhaps it was because of this fact, plus a presumed, and I trust not misplaced, hope of objectivity of approach which caused this selection.

As your Committee has viewed this problem, it is a three-fold one. It was initiated by the Commission's statement that a certain number of inadequate or poor quality films introduced in connection with official hearings before the Commission have resulted in (1) radiographic procedures, already performed and paid for having to be repeated; (2) in being forced to obtain multiple consultation examinations and opinions, and more important (3) in long term disability payments for cases (a) carried as having a disability which was not subsequently substantiated, and in (b) those cases negatively diagnosed, later proven to have disability.

Your Committee's efforts to solve this problem have been hampered by the attitudes demonstrated until most recently by the second and third group involved: namely the Radiologists and General Practitioner groups. (This refers to those groups, however represented on the Committee.)

In effect, the Radiologists have contended that there is no problem; that the present schedule is a fair one with which they are perfectly satisfied; that being so, the problem is non-

existent. The present and past Committees, until most recently, have voiced the complaint that the General Practitioner group, while most vocal in opposition to the principle of a double fee schedule, is of the least help in helping the Committee solve the problem. Geographically, however, their representatives have perhaps been unfortunately selected; this has been rectified. But they have also repeatedly said that while they will abide by any fee schedule agreed upon, they do not feel it proper to submit a fee schedule for consideration. To some, this has given the impression of having someone else pull one's chestnuts from the fire.

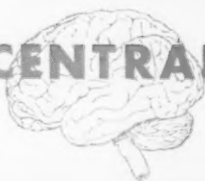
#### History Reviewed

It might be well at this point to review the situation as briefly but as pointedly as is possible. (This for the benefit of reviewing our own memories, refreshing our own memories, and for the benefit of new members of the House):

Commencing in 1953 this Committee then known as the Medical Services Plans Committee, feeling that the entire State Compensation Fee Schedule was both outdated and unrealistic, commenced a revision of that schedule. Conferences and conversations were held with representatives of the Industrial Commission as well as with each specialty group, including that of Radiology.

Under date of May 17, 1954, a preliminary letter, scheduled for later mailing to each specialty group, was sent to all members of that Committee. In the letter it was pointed out that the schedule, while not as complete as that of Blue Shield, was patterned and coded in a similar fashion and included those items which could ordinarily and reasonably be expected to

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be applicable in Workmen's Compensation cases; it was pointed out that a simple adoption of the Preferred Blue Shield Schedule had been objected to by the Commission on the grounds that it would increase medical fees for any given procedure anywhere from 50 to 200 per cent, averaging an increase of 100 per cent for individuals whose average income was considerably below the \$4,500 income level as was then established by Blue Shield; that if such cases were treated on a private basis, the patient would not be able to pay the fee of the Preferred Blue Shield Plan. It was further pointed out that fees as such are established by the Industrial Commission as provided by law and that the Medical Society has no power to set such fees. It was requested that such fees as were submitted for approval by the Commission be reasonable and realistic, not for the purpose of "dickering" and that they not be "specialty" fees.

Each member was asked to comment. Recorded in the return is the opinion of the radiological member of that Committee, approving the action of the Committee.

Approximately one month later, June 11, 1954, essentially that same letter, requesting submission of their respective fee schedules, was sent each specialty group, including the Colorado Radiological Society.

As of August 9, 1954, the Chairman of the Prepayment Services Committee of the Colorado Radiological Society returned that group's suggested fee schedule with the comment that "We are aware of the admonishment in your letter dated June 11, in which you requested that we should not submit 'specialty fees.' We are unanimous in the opinion that we cannot in conscience do other than to submit specialty fees. This is because we know the quality of work done by radiologic specialists and we can control this matter. We do not, of course, know the quality of work done by non-radiologists and we have likewise no control over such work." Comparisons between the procedures then current in the States of New York, Massachusetts and Ohio followed with the additional statement that "We feel that the enclosed fee schedule will be satisfactory for any radiologic specialist. We simply cannot judge what would be satisfactory for men in other lines of work who do x-ray work in addition to, or as part of, their practice."

#### Dual X-Ray Schedule

That schedule, together with those submitted by other specialty groups, was presented by this Committee to the Industrial Commission for approval and with certain modifications was approved by the Commission and released in printed form. When released, however, the schedule contained the provision that the full radiological fee would be payable only on a specialty basis and that those films taken by other than recognized specialists would be compensated on a 70 per cent basis. The Commission states that this was for their protection against the factor already mentioned.

Following this decision by the Commission, there arose from a certain segment of our profession a long, loud, potent and long-continued cry of protest. This cry, easily heard even among those whose ears had become ill-tuned to distinguishing systolic from diastolic murmurs, was well-pronounced in subsequent sessions of the House of Delegates.

Your Committee of last year attempted to resolve the problem. In effect, it is reported

that the radiologic group felt they had no problem and that the State Society as a whole had no problem since the present fee schedule was a satisfactory one; the Generalist group still refused to tackle the specific fee schedule problem.

At variance with the information previously noted, under date of April 23, 1956, the President of the Colorado Radiological Society addressed this Committee: "It was the opinion of this Committee (Professional Relations Committee) that the Colorado Radiological Society should take no position with reference to your proposal since our Society had no part in the adoption of the present policy by the State Commission for Workmen's Compensation and also since we do not feel that the Colorado Radiological Society's purpose includes judging the competency of any person in radiology or in other medical fields."

In its report to the House of Delegates, September 5, 1956, this Prepayment Services Committee reported that it had been "unable to find a solution which would resolve the problem which has been raised as a result of the disparity between the fees allowed specialists and those allowed General Practitioners for x-rays under the State Compensation Fee Schedule." It further went on to say that before the problem could be solved, the Society must decide "whether the Society approves or disapproves a double fee principle, one for specialists and another for General Practitioners." The House of Delegates at that time directed in favor of a single fee schedule and acting upon that directive this Committee has attempted to achieve this objective.

Commencing October 16, 1956, with a meeting with the entire Industrial Commission and subsequently with individual representatives, your Committee felt that not only progress was being made, but that a solution was probable—until February 18, 1957.

The initial proposal received was that a new schedule approximating 80 per cent of the present full schedule be drafted with an additional fee for written film interpretation when so requested by the Commission. For various reasons, this was subsequently rejected by the Commission.

The Committee, therefore, has recently been engaged over the past several weeks in attempting a revision of this portion of the current schedule. The one arrived at (and which incidentally has been passed to you all and contains the results of the most recent meetings of both Committees on February 4, 1957. Column 1 represents the old Industrial Commission schedule, Column 2 that currently in effect, Column 3 that which we propose; and, for purposes of comparison, Columns 4 and 5, respectively, Medicare and Preferred Blue Shield.) The one arrived at was quite honestly a compromise but we had reason to believe that as of one week ago it would be accepted by the Commission. In arriving at this schedule an attempt was made to lower those items felt to have caused the chief difficulty. Those not ordinarily done, save in extraordinary circumstances, or where both specialty care and equipment are necessary, were in essence unaltered. Several items not previously listed were included (and those are marked with an asterisk).

It was felt that this represented a good schedule and was unanimously approved by your Committee. In the meantime, both the Academy of General Practice and the Colorado Radiological Society had been contacted and invited



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to submit separate reports and recommendations, if desired, before the proper Reference Committee of this House of Delegates. They were both specifically asked to cover (1) consideration of the fee schedule itself; (2) justification of their respective stands on the current double fee schedule; and (3) methods of preventing and correcting inferior quality films.

As of February 18, 1957, however, your Committee was informed by a responsible representative of the Industrial Commission that the Commission finds itself unable to abide by the Single Fee Schedule Principle, as it relates to the Radiology. Your Committee is informed that the Commission feels that (1) the distinction in fees paid the occasional radiologist and the radiological specialist is a proper distinction based on our own professional standards as well as their experience; i.e.: they consider the double fee schedule to be just, right and proper; (2) they charge that an attempt is being made by the General Practitioner segment of this Society to enforce its will, through sheer weight of numbers, upon the Commission and the Society, a type of procedure which they feel is neither medically sound nor borne out by their experience.

#### Commission's Proposal

The Industrial Commission proposes to (1) revise the current Radiological Fee Schedule downward to approximately 75 per cent of the current figure, with due consideration being given to the 1950 schedule (in other words, refrain from lowering it below the figures in effect at that time); and (2) allow an automatic 25 per cent increase in the allowable fee paid for services performed by certified or recognized specialists.

The Commission representative also admits to having had informal conversation with one or more members of the Colorado State Medical Society (who also happen to be members of the Colorado Radiological Society, the date of these conversations is not known). Such conversation and opinions or recommendations no matter how spontaneously, unwittingly or innocently given, in this Committee's opinion nullifies the past efforts expended by this Committee and previous Committees and emasculates a procedure where, for the first time, negotiations have been carried on by the Industrial Commission of the State of Colorado and the Colorado State Medical Society in an official capacity.

Your Committee feels that its efforts for the past two years have been therefore nullified by the uncompromising attitude of one specialty group—this, despite a specific directive issued by the House of Delegates in September of 1956.

Since this Committee has lost its stature with the State Industrial Commission as an official intermediary body of the Colorado State Medical Society, it recommends:

(1) That the Prepayment Services Committee be relieved of its responsibilities of dealing with the Industrial Commission of the State of Colorado until such time as the Committee has the backing and the support of the entire membership of the Colorado State Medical Society.

(2) That this specialty group be invited to justify its stand in opposition to the directive issued by the House of Delegates meeting in September of 1956, and that such attempted justification occur on the floor of the present House of Delegates rather than in Committee.

(Continued on Page 380)

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1. Herrell, W. E., Erythromycin, Antibiotics Monographs, No. 1, p. 34, New York, Medical Encyclopedia Inc., 1955. 2. Eastman, G., Cook, E. and Bunn, P., N. Y. State J. Med., 56:241, 1956. 3. Solomon, S. and Johnston, B., Amer. J. Med. Sc., 230:660, 1955.

**Abbott**



(Continued from page 376)

(3) When such complaints arise as have been suggested to your Committee by the Industrial Commission, that the Industrial Commission be invited to avail themselves of the facilities of the proper Committee of the Colorado State Medical Society.

#### Supplemental Public Policy Report

Dr. Robert P. Harvey presented the following:

In addition to the actions taken by your Committee on Public Policy as reported in the Handbook, the following additional items have been considered by your Committee:

1. The Ophthalmic Dispenser Bill, one endorsed by both Ophthalmologists and Opticians but opposed by Optometrists, was considered. This bill proposed to establish a licensing board to regulate the manufacture and dispensing of corrective lenses for the general public but does not preclude the sale of such items over the counter from certain sources. Your Committee failed to see any decided benefit which would accrue from the bill's passage, but could see no reason for opposing the bill, therefore refraining from either opposing or endorsing said legislation.

2. Professional Nursing Bill. As originally drafted this bill seemed to offer but little improvement over the present law aside from a mandatory licensing provision; in addition, several items of criticism were voiced as to (1) the definitions contained in the bill; (2) the bill's inclusion of such professional and semi-professional help as technicians, physiotherapists, etc., as controlled by the licensing board; at one time there was some question but that physicians themselves would have to be licensed under this act; (3) a provision whereby both the attending physician and the patient's family would be liable for securing other than registered nurse assistance in either home or office; (4) the double function of the Board of Nursing Examiners to both examine applicants as well as establishing curricula, standards and actually approve Schools of Nursing. As presently amended, all but the last-named criticisms have seemingly been adjusted but your Committee has not passed on the final draft of this bill.

3. Enabling legislation covering the Social Security Amendments as they pertain to (1) needy disabled, (2) the blind, and (3) dependent children, have been introduced before the Legislature. That covering the old age pension group is encompassed in the recent constitutional amendment. Regarding this item of medical care, the Bureau of Public Welfare has not yet requested further advice from the Colorado State Medical Society, but this is expected.

4. Revision of the State of Colorado narcotic laws to more nearly conform with Federal statutes, as requested by the Narcotic Bureau, was approved.

5. A proposal to establish state supported drivers' education classes, as requested by the Subcommittee on Automotive Safety, was endorsed in principle.

6. The report of the Public Health Committee proposing a suggested Guide for Relationships between Medical Societies and Voluntary Health Agencies, as originated from the American Medical Association, was approved.

7. Medical Finance Organizations. Your Committee's opinion relative to the operation of one such organization was requested. In the company's initial radio and television advertisements to the public, endorsement by the medical and

dental professions were implied; such endorsement was never given by this Society; the implication has now been removed from the advertising material. In addition, advertising material from this company has been or is being carried by the Colorado State Medical Society and one of its Component Societies, without prior policy approval. Since such advertising implies such endorsement which has not been given, your Committee recommends that at the expiration of the present contract, in the future the Colorado State Medical Society not endorse such plans, not accept advertising from, nor rent exhibition space to such companies requesting such action.

8. Aid to Needy Disabled Examinations. A request was received from one of the component societies of the Colorado State Medical Society that the question of payment for Aid to the Needy Disabled examinations be referred to the House of Delegates for a statement of policy pertaining thereto. Your Public Policy Committee concurs with this request.

Originally, this question arose in 1953, at which time the House of Delegates voted to perform such examinations without fee wherever possible. Apparently the procedure followed has varied in different localities throughout the State. More recently, your Public Policy Committee, upon being asked for its opinion, recommended that whether or not a fee was charged be determined on a Component Society level. Further review is now requested.

9. Free Choice of Physician Principle. The Public Policy Committee has discussed the Principle of Free Choice of Physician on repeated occasions. (It has been informed as to the results of previous fact-finding bodies, including those of the American Medical Association, of special Committees of the Colorado State Medical Society including recent discussions before the Board of Trustees.) The implications arising from such discussions have immediately led to a consideration of the possibility of legal action.

The Public Policy Committee at this time desires a definite consensus expression of opinion from the present House of Delegates concerning its willingness or unwillingness to fully defend this principle to the utmost, despite the possible consequences and ultimate cost.

The above supplemental report was discussed at length by Drs. S. P. Newman, Bradford Murphey, Tom M. Parry, W. Wiley Jones, Robert P. Harvey, George R. Buck, David Halfen, G. C. Milligan, James M. Perkins, Cyrus W. Anderson, John B. Farley, H. Calvin Fisher, Robert T. Porter, Kenneth H. Beebe, I. E. Hendryson, and A. T. Waski.

Following the discussion, Vice Speaker McGlone, in the chair, referred the supplemental report to the Reference Committee on Legislation and Public Relations.

Dr. Harvey then presented, on behalf of the Public Policy Committee, the following four numbered resolutions. Resolutions Nos. 1 and 2 were, as required by the By-Laws, referred to the Board of Councilors without debate. Resolutions Nos. 3 and 4 were referred to the Reference Committee on Legislation and Public Relations.

#### Resolution No. 1

WHEREAS, With the increased introduction of a third party into the Physician-

Patient relationship as regards medical fees, and

WHEREAS, Plans to accomplish this altered but apparently accepted relationship repeatedly raise the question of the Free Choice of Physician principle; now be it therefore

RESOLVED, That The Board of Councilors of the Colorado State Medical Society be memorialized to take earnest cognizance of the statement of this principle as currently contained in Sections 3 and 4 of Chapter 7 of the Principles of Medical Ethics of the American Medical Association.

#### Resolution No. 2

WHEREAS, We believe the Free Choice of Physician by the individual to be one of the fundamental privileges and rights to which citizens of the State of Colorado and the United States of America are entitled, and that

WHEREAS, Certain organizations and plans are believed to thwart, abridge, or remove this right from the individual citizen, be it therefore

RESOLVED, That the participation by physicians in such plans, other than those falling within the province of existing laws of the State of Colorado, which prevent the operation of the principle of Free Choice of Physician, be considered unethical by the Colorado State Medical Society.

The Public Policy Committee in its same Supplemental Report introduced the following resolutions which were discussed at length and referred to the Reference Committee on Legislation and Public Relations, which later in the session reported concerning them:

#### Resolution No. 3

WHEREAS, We firmly believe the principle of Free Choice of Physician to be one of the inherent rights and liberties of any American citizen, and

WHEREAS, We believe the operation of the United Mine Workers of America Welfare and Retirement Fund to be in direct opposition to, and in conflict with the Free Choice of Physician principle; therefore it is recommended to the House of Delegates that the Colorado State Medical Society reluctantly, yet firmly, condemn the attitude assumed by the United Mine Workers of America Welfare and Retirement Fund as stated by their medical representatives. Further, be it therefore

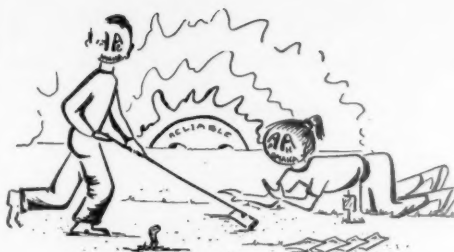
RESOLVED, That the Colorado State Medical Society look with disfavor upon any physician member who includes the United Mine Workers of America Welfare and Retirement Fund in negotiations for medical, surgical or obstetrical care for any beneficiary of that Fund.

#### Resolution No. 4

RESOLVED, That in future dealings with patients who are beneficiaries of the United Mine Workers of America Welfare and Retirement Fund or any other similar closed panel system, that the physician render proper care and deal directly with the patient in all respects.

#### Additional Reports

The reports of the Committee on Rocky Mountain Medical Conference and the Committee on




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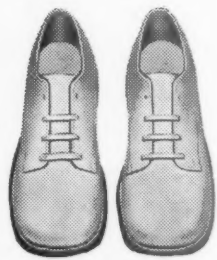
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Scientific Program were referred, without supplement.

Vice Speaker McGlone, in his capacity as Chairman of the Committee on American Medical Education Foundation, presented the following report orally, which was by Speaker Swartz referred to the Reference Committee on Miscellaneous Business.

"At your places there have been passed out copies of a summary of American Medical Education Foundation contributions for 1956. You will see therefrom that Colorado last year contributed to medical education \$23,190.57. Seven hundred and thirteen of 1,563 doctors contributed. The areas that did by far the best were Greeley, Aurora, Littleton, and Englewood, where they had three out of four doctors contributing an average of \$40 to \$50 per person. Denver had five out of eight doctors contributing \$29. And the other communities are those which were just picked at random and listed.

"As you can see, some did very badly. It is this contribution to AMEF which is going to help keep the federal government out of medicine. Much of the discussion in the National Committee of the AMEF was related to the addition to dues. If we added \$20 dues per person we would collect about \$8,000 more per year. The states that have done the best are those that have added \$20 to the dues of their dues-paying members of their societies. It would be well, I believe, for the Reference Committee to consider this. But what is more important is for the doctors, when they go back to their communities, to remember the AMEF this year, and particularly the communities in the southern part of the state should take cognizance of this fact and do better this year than they have done in previous years. The northern part of the state has done real well. So let us get the southern part on this band wagon, too."

#### Special Resolution

Speaker Swartz: "If we may interrupt the order of business, there is a resolution which needs to come before us today, and I will ask Dr. Sadler to present his resolution."

Delegate Jackson Sadler presented the following proposed resolution, and form of letter addressed to Governor Stephen L. R. McNichols:

**RESOLVED**, That we, the members of the Colorado State Medical Society, meeting at Denver this 19th day of February, 1957, espouse and support the appointment of Dr. Frank B. McGlone as a member of the Board of Regents of the University of Colorado, and that in furtherance of our support there be addressed and delivered to Hon. Stephen L. R. McNichols, Governor of the State of Colorado, in our behalf a letter reading as follows:

We respectfully and earnestly urge your favorable consideration of Dr. Frank B. McGlone for appointment as a member of the Board of Regents of the University of Colorado.

Our reasons for proposing and supporting the appointment of Dr. McGlone are:

1. He is a graduate of the University of Colorado and of its Medical School, receiving his A.B. degree in 1934, and his degree as a Doctor of Medicine in 1938. During his student days he was most active in University affairs, was senior class president, and at graduation was selected as cane bearer, the highest class honor.

2. Since graduation he has continued his interest in the University, its Medical School and the Colorado General Hospital. He was a member of the Board of Directors of the University Alumni Association for two years, and of the Medical School four years. In 1955 he was awarded the alumni recognition medal for outstanding service to the University. He was one of the leaders in raising funds for the new memorial building at the University, and is active in promoting its Development Fund.

He has been associated with the staff of the Medical School since 1940, and at the present time devotes part time service as Assistant Professor in the department of medicine, and has been on the executive faculty of the medical school since 1950.

He is now President of the Staff at Colorado General Hospital, and has been a member of its Board since 1950.

During the past few years he has served on many important committees at the Medical School, including chairmanship of its Public Relations Committee, member of the Lempke Committee to consider problems of the indigent, member of joint committee of Regents and State Medical Society to discuss private wing at the Medical School, and a member of the American Medical Education Foundation to gain private support for medical education. He served on the National Advisory Board of the Foundation during the past year, and for two years was president of the Colorado Foundation for Medical Education and Research. He was also a member of the Committee for the selection of the Director of the Medical Center.

3. His reputation as a practicing physician is outstanding, and he is a most active member of the Denver County Medical Society and the Colorado State Medical Society.

He interned at Denver General Hospital and had postgraduate training in internal medicine at the University of Colorado, and in gastroenterology at the University of Chicago, Billings Hospital.

He was certified by the American Board of Internal Medicine in 1948, made a Life Fellow of the American College of Physicians in 1950, certified to the American Board of Gastroenterology in 1952 and is a member of the American Gastroscopic and American Gastroenterologic Societies.

For several years he has been a Trustee and Officer of the Belle Bonfils Blood Bank. He is consultant to the Denver Veterans Administration and to Fitzsimons General Hospital.

He has served on the Executive Committee of St. Joseph's Hospital since 1950, as president of its staff for two years, and has been a member of the Board of Directors of Ave Maria Clinic six of the past ten years.

For three years he has been a member of the Blue Shield Board of Trustees and Chairman of the Blue Shield Committee of the State Medical Society for one year.

Dr. McGlone has served the Denver County Medical Society for two years as Chairman of its Public Policy Committee, and last year was its Vice President. For several years he has served on the legislative committees of both the State and Denver Medical Societies, and for three years was Chairman of the Medical School Committee of the Denver Society.

He is presently Vice Speaker of the House of Delegates of the State Society, for six years he has been a member of the State Society's Public Policy committee, for two years its chairman,

(Continued on Page 385)

(Continued from Page 382)

and has served as a delegate to the State Society for ten years.

During his entire career he has been most assiduous in furthering advancements at the Medical School and at Colorado General Hospital.

During World War II he served five years in the Medical Corps. His discharge rank was as Lt. Colonel, and he was Chief of Gastroenterological Service at the University of Colorado's 29th General Hospital Unit.

He is most highly regarded both professionally and as an active citizen furthering community affairs.

4. The Medical School and the Colorado General Hospital are among the most important institutions under the direction of the Board of Regents, each having complex problems differing from each other, and from the other activities of the University. We believe these problems can best be met if a practicing physician with a broad yet intimate knowledge of the affairs of the Medical School and of the Colorado General Hospital serves on the Board of Regents of the University. It is our sincere feeling that Dr. Frank McGlone possesses unique and valuable experiences and abilities, together with a profound dedication to the University, which could give to the Board of Regents an enhanced capacity to cope with the needs and problems incident to the entire University operation, and particularly as related to the Medical School and the Colorado General Hospital.

This letter is written and addressed to you under specific authority and direction of the resolution adopted by the House of Delegates of the Colorado State Medical Society on February 19, 1957.

Respectfully,  
Carl W. Swartz, M.D.,  
Pueblo,  
Speaker, House of Delegates.

Attest:  
Harvey T. Sethman,  
Secretary.

The Chair ruled that the resolution could be considered out of the regular order of business and without reference to a reference committee if the House gave unanimous consent, and asked if there was objection to considering the resolution at this time.

Delegate Samuel B. Childs discussed the Resolution, in opposition to the philosophy of the Society recommending any person for political appointment, but did not object to consideration of the resolution, which was then adopted by viva voce vote.

Speaker Swartz noted that the meeting room must be vacated for other usage, consulted the House informally regarding a time for a recessed meeting of this first-day meeting, and after routine announcements declared the House in recess until 4:30 p.m. Wednesday, February 20, 1957, in the same room.

**RECESSED MEETING**  
**Wednesday, February 20, 1957**  
**4:40 p.m.**

Speaker Swartz called the House to order to continue the First Meeting of the House

for APRIL, 1957

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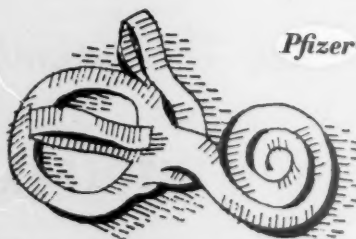
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which had been in recess since the previous evening. Eighty-four accredited delegates answered the roll call (more than a quorum).

Before proceeding with reports of committees, Speaker Swartz stated some delegates had raised questions which indicated certain proceedings had not been clear to them when the House adopted a resolution urging Governor McNichols to appoint Dr. Frank B. McGlone to the Board of Regents of Colorado University, and briefly reviewed proceedings and explained the procedure and assured the House its action was legal and complete in that respect.

#### The Blue Shield Fee Schedule Report

Chairman Warren W. Tucker presented the report of the Blue Shield Fee Schedule Advisory Committee as adopted at its meeting February 18, 1957.

"Items 1, 2, 3 and 4 had to do with isolated individual procedures and will not be read in detail.

"No 5 increased preferred plan allowance to adult tonsillectomy with or without adenoidectomy performed under general anesthesia from \$50 to \$60. Item No. 6, a list of twenty-seven procedures with recommended revision, submitted by the Denver Gynecological and Obstetrical Society, was acted upon with the following net results. Recommended acceptance of proposed reductions in the allowance of fifteen procedures; recommended acceptance of proposed increases in six procedures; recommended six additional new procedures not heretofore in-

cluded in the fee schedule. Item No. 7: As its last order of business the Advisory Committee considered the question of Blue Shield benefits for the surgeons and assistant surgeons. The Committee was cognizant of the fact that the prior recommendation made at its meeting of September 4, 1956, had been tabled by the House of Delegates of the Colorado State Medical Society, and referred back to the Advisory Committee for further consideration. The full Committee was advised that at its December meeting, December 15, 1956, the Executive Committee had considered the problem at some length and concluded that despite any other action which might be taken it was apparent that a number of procedures were currently designated to be eligible for assistant-surgeon benefit which procedures should not in fact be so classified.

"Thus it was the Executive Committee's recommendation that the plan's entire fee schedule be reviewed with an eye to deleting such asterisks as would be appropriate.

"On proper motion and seconding the Committee voted to uphold the existing provisions relative to benefits of the assistance of an assistant surgeon under the Preferred Blue Shield Plan, which provides for a separate allowance on a time basis to the assistant surgeon for certain eligible procedures when no intern in residence is available or qualified to assist; and further to revise the medical procedures designated as ones eligible for assistant surgeon benefits, as needed, by action of the full Committee.

"In light of this the Committee recommended deletion of thirty-four asterisks relative to fees existing for the musculo-skeletal system section of the fee schedule, two procedures in the respiratory system, eight procedures under

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the digestive system, two procedures under the ear system, two procedures in the cardiovascular system, and three procedures under the female genito-urinary; total of asterisks deleted fifty-one.

"The Committee also recommended the addition of fifty-four asterisks on procedures appearing in the musculo-skeletal system section which represented procedures properly eligible for assistant surgeon benefits for which the original printing of the schedule made no provision, even though similar procedures immediately preceding or following were so designated. These were really compound fractures.

"The meeting was adjourned at 9:50 p.m. Of the forty-eight eligible members of the Committee, in excess of forty were present."

Speaker Swartz referred the report to the Reference Committee on Legislation and Public Relations.

### Polio Report

Chairman Ward L. Chadwick presented the report of the Polio Vaccination Committee which follows, and after brief discussions thereof, Speaker Swartz referred it to the Reference Committee on Miscellaneous Business for consideration.

As the result of a special meeting called by the AMA on January 26, 1957, in Chicago with regard to Polio Vaccination, the Executive Committee of the Board of Trustees appointed a special subcommittee to the Public Health Committee. This committee, Polio Vaccination Committee, held its first meeting on February 9, and submits the following which its members unanimously adopted:

The Polio Vaccination Committee recommends to the House of Delegates that the Colorado State Medical Society and its constituent societies assume the active leadership in a campaign to immunize the people of Colorado so that paralysis from polio and its subsequent economic and social problems can be averted. Serious outbreaks can be expected if far more of the population is not vaccinated within the near future.

It is recognized that communities differ in their political and social backgrounds and that for effectiveness each community must develop its own program. In each community, however, it is recommended that the medical society seek the support and assistance of all non-medical community groups so that the best methods of reaching all people can be developed.

All doctors, who are members of the Colorado

State Medical Society, set aside the month of March in their offices as Polio Vaccination Stations and that not over \$3.00 per shot be charged for each polio shot given.

The committee requests that it be empowered to make this information available immediately to all the news media and that all Presidents and Secretaries of the component societies be notified in writing in order that implementation of the program can be accomplished as soon as possible.

WARD L. CHADWICK, Chairman
JOSEPH CANNON
JOHN B. FARLEY
MARIANA GARDNER
JAMES M. LAMME, JR.
MRS. J. S. HALEY
JOHN LUNDGREN
MARY MOORE
MAURICE SNYDER
JOHN ZARIT

Dr. Chadwick: "Mr. Chairman, it is my understanding that you have in your portfolio the report of this Committee. I would like to enlarge upon the paragraphs as you may be glancing at it in order to give you a little better idea of the background of this report.

"This polio vaccination is not just another health drive or another vaccination. It is under the guidance of the AMA. They have been behind this thing from January, when a meeting was held in Chicago. Two representatives from Colorado were there and a representative from every other state in the union was there. The preventive medicine impact of this program is tremendous.

"As you have been notified there is an abundance of vaccine, and it is safe and it is effective. There has been nothing done of this nature in the history of Colorado. Some of you may remember epidemics of smallpox, for example, possibly diphtheria, but this is unusual in the fact that it is to be done and we are taking the leadership in doing it. The success of this program depends on medicine's attitude. It is a medical service program. The public relations will take care of themselves.

"Your Committee, representing men from most corners of our state, have unanimously adopted this report. In order to give this thing the impact that it deserves in a state that has the reputation for handling preventive medicine under the guidance of as great a character as Dr. Florence Sabin, we feel that all doctors who

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are members of the Colorado State Medical Society should set aside the month of March in which their offices will be polio vaccination centers and that not over \$3 per injection be charged for each injection given. This is the factor that will make this program a success, because of the fact that the doctor's pocket motive cannot be questioned. Excess profits certainly do not have a place in this polio vaccination program.

"Your Committee has posters available and things of this nature that can be used in public transportation, shop windows, and so forth. This type of material can be placed in the reception room, with stuffers which may be placed in mailing material for Chambers of Commerce, with bank statements, or what have you.

"The Committee requests that it be empowered to make this information available immediately to all of the news media, and that all the presidents and secretaries of the component societies be notified in writing in order that the implementation of this program can be accomplished as soon as possible."

The above report was discussed by Drs. John I. Zarit, Robert G. Bosworth, Jr., and William M. Covode, following which Speaker Swartz referred the report and discussion to the Reference Committee on Miscellaneous Business.

There were no further Board or Committee reports, and Secretary Sethman certified that there was no unfinished business remaining from the Annual Session.

#### **Political Resolution Offered**

Under new business, Dr. Reginald H. Fitz, Denver, spoke briefly in explanation and submitted for consideration a resolution that it is contrary to the policy of the Colorado State Medical Society officially to endorse a political party or candidate for political appointment or office. It was also discussed by Dr. S. P. Newman, in opposition, after which Speaker Swartz referred the proposed resolution and discussion to the Reference Committee on Legislation and Public Relations.

The proposed resolution follows:

RESOLVED, That it is contrary to the policy of this organization officially to endorse a political party or candidate for political appointment or office.

#### **Resolution on Office Assistants**

Dr. Robert B. Richards of Fort Morgan proposed the following resolution:

WHEREAS, There is steadily increased demand for more complete and detailed medical office records; and

WHEREAS, There are more and more medical report forms, such as insurance reports and so forth, being demanded from medical offices; and

WHEREAS, There is presently no course of study being offered in any of our universities, colleges, or business schools in this region that adequately prepares stenographers or office assistants specifically for the medical office, especially in vocabulary and terminology; and

WHEREAS, On the 4th day of February, 1957, at the Morgan County Medical Society meeting held at Brush, Colorado, a motion was made and passed authorizing and directing the delegation from the Morgan County Medical Society to the Colorado State Medical Society to attempt to correct the situation; therefore be it

RESOLVED, That the Colorado State Medical Society, through the direction of its Educational Committee or other more appropriate committee does hereby enter negotiations with the proper authorities, the University of Colorado, the Emily Griffith Opportunity School, or other recognized educational facilities for the creation or institution of a program for the purpose of educational studies for medical office personnel; and further, be it

RESOLVED, That such educational program include specifically a minimum vocabulary or glossary of words and terms commonly used in and about the medical office, the more common and useful types of medical records and bookkeeping systems, as well as a minimum amount of typing and shorthand, and also some training in technique of preparation of patients for medical examination and assisting the doctor in his office during such examinations.

The above resolution was referred to the Reference Committee on Miscellaneous Business.

#### **Reference Committee on Board of Trustees**

Chairman Lawrence D. Dickey presented the following report of the Reference Committee on

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Board of Trustees and Executive Office, which was adopted section by section and as a whole without dissent:

"(a) The Committee considered the report of the Board of Trustees paragraph by paragraph and approved the report as a whole as printed in the Handbook with the following exception:

"That in the section on Medicare, the Committee moved that the words 'for future years' be changed to read 'from year to year.'

"The Committee then considered and approved the supplemental report to the House regarding the temporary employment of a graphic arts consultant to modernize the typography and makeup of the Rocky Mountain Medical Journal, and the changing of the reserve fund limit from \$1,000 to \$3,000 for this year.

"(b) The Committee then considered the report of the Executive Secretary paragraph by paragraph and approved the report as a whole.

"(c) The Reference Committee has been made aware that in 1950 the House of Delegates authorized the Board of Trustees to explore the possibilities of setting up contractual arrangements with our employees with a provision for severance pay. In view of the fine work of that staff, your Committee recommends that the House of Delegates empower the present Board of Trustees to offer employment contracts, not to exceed five years' duration, to the present executive staff.

"(d) The Committee considered the report of the Foundation Advocate and approved the report as printed in the Handbook. The Committee wishes to commend Dr. Walter W. King for the excellent work as Foundation Advocate."

(It was noted that the following members of the Reference Committee were present and participated in the Committee's report: Lawrence D. Dickey, Cyrus W. Anderson, J. Lawrence Campbell, Robert E. McCurdy, William R. Sisson, and J. S. Watson.)

Following the presentation of subsection (c) of the above report, Dr. Thomas J. Kennedy, Denver, asked what this would entail to the Executive Staff, to which Chairman Dickey re-

plied that was left up to the Board of Trustees, that there were two types of full-time employees, executive and clerical, and stated the Society has only three classified in the executive capacity.

Vice Speaker McGlone assumed the chair, announced the House was about to go into Executive Session, appointed Sergeants-at-Arms to clear the room of unauthorized attendants, and the House did then go into Executive Session.

Upon arising from Executive Session, the following proceedings were recorded:

William A. H. Rettberg, Denver: "I move that the veil of secrecy be removed with respect to the report of the Special AMA Committee that was requested to study the Trinidad problems, together with a supplemental report by Dr. William A. Sawyer, the Chairman of the Committee, for the use of representatives of the Colorado State Medical Society attending a meeting of the American Medical Association Committee on Medical Care of Industrial Workers to be held in Chicago in March."

Delegate James A. Philpott, Jr., seconded the motion. There was no discussion and the motion carried without dissent.

This concluded the business of the House for the day and Speaker Swartz therefore declared the House of Delegates adjourned until Thursday afternoon at 4:45 p.m., February 21, 1957, to reconvene in the Lincoln Room.

## SECOND MEETING

Thursday, February 21, 1957

4:45 p.m.

Speaker Swartz called the House to order at 4:40 p.m., Thursday, February 21, 1957. Credentials Chairman C. C. Wiley reported recommending the seating of Dr. George S. Williams as Alternate in place of Delegate H. E. McClure, from Prowers County; and Dr. John I. Zarit, as Alternate, replacing Delegate William R. Lipscomb, of Denver. The roll call disclosed sixty-six accredited members of the House present, more than a quorum.

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On motion the supplemental report of the Credentials Committee was adopted.

The House voted without dissent to dispense with reading of the Minutes of the First Meeting of the House.

President-Elect Gatewood C. Milligan introduced to the House Dr. Robert J. Glaser, Dean of the Medical School recently appointed. Dr. Glaser extended brief greetings and comments.

No additional reports were offered by the Board of Trustees, the Grievance Committee, or any individual officer of the Society. No committee, except reference committees, had any further report.

#### Report of the Board of Councilors

Chairman Herman W. Roth, of the Board of Councilors, presented the following report, which was accepted without discussion or formal action:

"With regard to Resolution No. 1 referred to the Board of Councilors, the Board accepts the memorial from the Public Policy Committee and accepts, as it always has in the past, the responsibility for interpretation of Principles of Medical Ethics. This Board of Councilors in the past has devoted many long days of meetings concerning Sections 3 and 4 of Chapter VII of the Principles of Medical Ethics and will continue to take earnest cognizance of those statements as it has in the past.

"With regard to Resolution No. 2 also referred to this Board from the Public Policy Committee, your Board of Councilors is unanimous in its agreement with the Public Policy Committee that the principle of the free choice of physician by the individual patient is a fundamental right of all Americans. It must be realized, however, that there are many situations which preclude an absolutely free choice of physician. This fact has been many times reiterated in decisions of the Judicial Council of the American Medical Association. Since this matter was referred to the Board of Councilors, hearings and interviews with many members of the Society have been conducted almost continuously. Nevertheless, forty-eight hours is insufficient time to develop enough information before the Board of Councilors to make it possible for the Board to formulate the definitions of free choice of physician in Colorado and to arrive at the other clear-cut statements which the membership undoubtedly desires.

"The Board of Councilors assures this House of Delegates that the Board will continue with all reasonable rapidity its study of this matter and as soon as possible will publish to the membership its findings and conclusions."

Chairman Roland R. Anderson, El Paso, of the Reference Committee on Legislation and Public Relations, presented the following report, which was adopted section by section and as a whole, as amended, without dissent.

Dr. Anderson: "Before starting this report I would like to thank the members of the Committee who worked so diligently on this very difficult problem. They spent many hours attempting to work out some sort of a solution to present to you today. And I would also like to ask you, before I read the report, to please be kind to all the members of my Committee and be friendly with them after you hear the report!"

#### Report of the Reference Committee on Legislation and Public Relations

"Your Reference Committee recommends approval of the section of the report of the Industrial Relations Committee as it appears in the Handbook on pages 8, 9, 10 and 11, and we wish to thank and compliment this Committee on a hard job well done.

"Your Reference Committee recommends approval of the section on pages 17 and 18 of the Handbook which deals with the general report of the work of the Public Policy Committee. We also wish to compliment this Committee on the tremendous amount of work which it has performed.

"In the Supplemental Report of the Public Policy Committee, Sections 3 and 4 were given careful consideration and these articles were discussed by many members of the Society. It is the thought of this Committee that these articles are too limited in their scope since they deal primarily with one labor organization. This Committee believes that this problem of the free choice of physician and the relations between organized medicine and organized labor is a far-reaching one, with many ethical, legal and moral ramifications. We believe, therefore, that we should deal with this problem in a careful yet dynamic manner with the thought that we may be establishing a precedent for many years to come. With these thoughts in mind we propose the following:



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WHEREAS, We firmly believe in the principle of the free choice of physician to be one of the inherent rights and liberties of any American citizen,

1. We recommend that this House of Delegates go on record as opposing any form of panel practice or other patient-doctor relationship which does not abide by this long-established principle of the free choice of physician as defined by the Principles of Ethics of the American Medical Association.

2. We direct that our Delegates to the American Medical Association by resolution and all other means available to them attempt to get a strong and dynamic policy on a national basis for organized medicine to remain united and firm in dealing with medical plans which do not guarantee the free choice of physician. We also direct our Delegates to the American Medical Association to do everything in their power to gain the support of other state delegations to the American Medical Association to support such a policy.

3. We also realize the deep responsibility of each doctor and of organized medicine to the patient's welfare. This tenet must be uppermost at all times. In carrying out the principle of free choice of doctors we must at all times do what is best for the patient.

4. We further recommend that this Society strongly disapprove of any physician who takes part in any form of medical practice where the principle of free choice of physician does not prevail.

"Action on the Supplemental Report to the House of Delegates by the Public Policy Committee:

"Section 1: This section deals with the ophthalmic dispensers bill. We approve the Committee's noncommittal stand on this bill.

"Section 2: Professional Nursing Bill. We approve the action of the Committee as this bill has not reached the legislature in final form. We believe it should be limited to the nurses and not involve other segments of the medical profession.

"Section 3: This pertains to enabling legislation covering the social security amendments. We approve of the Committee acting as an advisory agency to this action.

"Section 4: Revision of the State of Colorado narcotics laws. We believe that this should be approved.

"Section 5: A proposal to establish state-supported drivers' education classes. The Committee approved this in principle.

"Section 6: The report of the Public Health Committee proposing a guide for relationships between medical societies and voluntary health agencies. We approve this action.

"Section 7: This section deals with medical finance organizations.

"\*Section 8: We recommend rescinding the order of 1953 which stated no fee would be charged for examining patients for the needy disabled.

"Section 9: We believe the House of Delegates should go on record as favoring the principle of free choice of physician without reservations.

"Section 10: Report of the Blue Shield Fee Schedule Advisory Committee:

\*This was not adopted. See following paragraphs.—Secretary.

"We recommend adoption of the report of the Blue Shield Fee Schedule Advisory Committee as outlined on page 21 of the Handbook and in their supplemental report.

"A special resolution was presented to the House of Delegates pertaining to the policy of this organization to not officially endorse a political party or candidate. While we approve of the philosophy behind the resolution, we believe that it would be better to postpone action on this resolution until the next meeting of the State Society. The reason we believe this is that we find a wide divergence of opinion as to how active a state medical society should be in politics. We believe that a careful study of this problem should be made before we take definite action."

ROLAND R. ANDERSON, Chairman  
JOHN H. AMESSE  
CALVIN FISHER  
ERNEST A. JAROS  
R. N. McILROY  
BRADFORD MURPHEY  
LUMIR R. SAFARIK

Section 8 of the above Reference Committee report was discussed at length by Drs. G. C. Milligan, Vice Speaker McGlone, Cyrus W. Anderson, I. E. Hendryson and Lee J. Beuchat. Dr. Hendryson offered a motion to substitute for the report of the Reference Committee that the Society "continue on the same basis as we have done since 1953" (i.e., that the Society urges physicians to decline to accept fees offered by Welfare Departments for performing certification examinations upon applicants for assistance under the Aid to Needy Disabled program.—Sec'y). The substitute motion was then adopted by viva voce vote.

Vice Speaker McGlone commended the Reference Committee for an outstanding job in a short period of time on very difficult problems.

#### Reference Committee on Professional Relations

Chairman V. V. Anderson: "Mr. Speaker, I should like first to express my appreciation for the work of the Committee on Professional Relations for their attendance."

"Your Reference Committee has met and considered the Society's Committee and Board Reports which include the Report of the Board of Councilors, the Report of the Grievance Committee, the Reports of the Delegates to the American Medical Association, and the Report of the Committee on Prepaid Services and that includes the confidential report of the Board of Councilors.

"This Committee accepts the Report of the Board of Councilors as documented in the Confidential Handbook.

"This Committee wishes to indicate that it is aware of the fact that the Board of Councilors has been working with a difficult problem in its considerations, and that they have been asked questions which at this time are impossible to answer due to the legal complications involved.

"Your Reference Committee wishes to indicate that it understands and appreciates the amount of time, effort and thought the Board of Councilors has contributed in pursuing these problems toward their conclusion.

"Your Reference Committee concurs in all of the statements of the Board of Councilors and with the fact that definite statements as answers



to the questions propounded must await the outcome of higher court rulings.

"Your Reference Committee has read the detailed confidential report as given to this House and accepts it in toto without comment, with the exception that your Reference Committee wishes to express its appreciation and thanks for the thorough and yet concise manner in which this report was written and presented.

"Your Reference Committee is acquainted with the reports of the delegates to the American Medical Association and recommends their adoption. The Committee wishes to express its appreciation for the time and effort these Delegates have expended in the pursuance of their duties.

"The Reference Committee has examined the report of the Grievance Committee and recommends its adoption. Your Reference Committee wishes to express its appreciation for the time and effort the Grievance Committee has expended in solving its problems and the Committee is sure that the entire medical body concurs in this thank you.

"Your Committee has examined in detail the written report of the Committee on Prepayment Services as presented to this House of Delegates at its First Meeting on February 19, 1957. In addition, in order to acquire more complete and specific information, several members of their Committee and also one member of the State Compensation Insurance Fund were kind enough to answer numerous questions concerning this report. As a result of the information gathered from several hours of questioning from the above sources, your Reference Committee is rather assured unanimously that the report as delivered to the House of Delegates is essentially accurate. This conclusion having been made, your Committee feels that a potentially serious error has been made, possibly innocently, but in fact, nevertheless true.

"Your Reference Committee finds that a review of preceding events outlined in the Report of the Committee on Prepayment Services is essentially factual and your Reference Committee wishes to remind the House of Delegates that on September 5, 1956, the House of Delegates in Session voted and directed that an attempt should be made to implement a Single Fee schedule and that the Committee on Prepayment Services has acted on this directive since that time.

"Furthermore, your Reference Committee, as a result of this inquiry into this Report, and current events concerning it, have become convinced that the Committee on Prepayment Serv-

ices, until the very past few days, had nearly achieved its goal, having for practical purposes come to an agreement rapport with the State Industrial Commission and the State Insurance Fund representatives.

"Your Reference Committee has furthermore come to the conclusion that the agreement reached was highly jeopardized, and possibly nullified, within one or two days previous to the convening of this House of Delegates by pressure, advice, and through the media of a letter or letters written by one or more members of the Colorado State Medical Society to representatives of the State Industrial Commission and/or the State Compensation Insurance Fund.

"Your Reference Committee is convinced that the effect of these efforts has been to again or to further confuse understanding between the State Industrial Commission and the State Compensation Insurance Fund on the one hand, and the Colorado State Medical Society on the other. It appears also to have removed, at a considerable expense, the effective solidarity of the Colorado State Medical Society as a whole, insofar as the State Compensation Insurance Fund and the State Industrial Commission are concerned. The impression gained by this Reference Committee, after questioning a member of the State Compensation Insurance Fund who, it must be well emphasized, kindly contributed his time in an unofficial capacity, is that while previously there seemed to be some degree of agreement between the Committee on Prepayment Services and the Commissioners of the funds involved, the past few days have again thrown the entire matter into confusion and this has resulted from pressure brought to bear by one or more members of the Colorado State Medical Society acting as individuals and without authority of any other body.

"Your Reference Committee recognizes the fact and agrees with the concept that members of the Colorado State Medical Society, as well as all other members of the Society, have the inalienable right to state their opinions as individuals. However, your Reference Committee thinks that it sees considerable potential danger, disruption and disunity, in our relations with all insurance plans and workmen's compensation plans, should the attitude of some members of the Colorado State Medical Society continue to the detriment of this body as a whole.

"Your Reference Committee does not wish to nor would it attempt to indicate the right or law of the decision of the House of Delegates, as of September 5, 1956, directing that the Committee on Prepayment Services concentrate on

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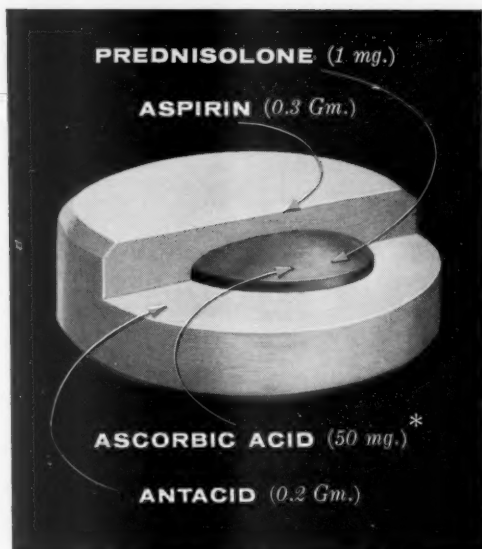
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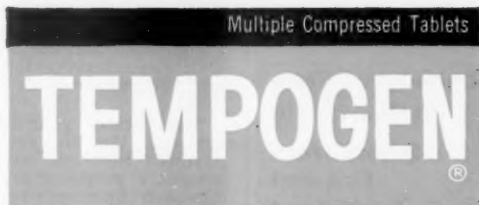
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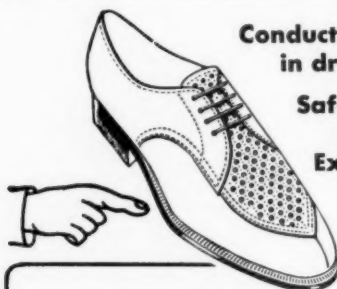
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a Single Fee schedule so far as the State Industrial Commission and the State Compensation Insurance Fund are concerned. However, it is the opinion of your Reference Committee, that the majority actions of the House of Delegates implies cooperation and assent by all the members of the Colorado State Medical Society and that the least the Committee on Prepayment Services in this state can expect is notification before contemplated action by these individuals. Insofar as the Reference Committee can determine, all members and branches of the Colorado State Medical Society and its individuals have been given ample opportunity to meet with and consult with the Committee and to state their problems. Numerous letters in the file indicate this fact. At the present time it appears that disagreement in the Colorado State Medical Society is between Radiologists and the General Practitioners; but it should be obvious to all of us that the problem could rapidly spread to involve all members of the Society, whatever their specialties.

"Your Reference Committee considers that the Report of the Committee on Prepayment Services points out the fact of an intra-professional relations problem that most certainly should be solved intra-professionally, and not through correspondence with extra-medical persons who can by such correspondence only gain the impression that there is disunity within the medical profession of the State of Colorado, an impression that we are sure you will all agree should not be allowed to continue.

"Your Reference Committee recommends without equivocation that the present Committee on Prepayment Services be continued and that it be specifically instructed to further work intra-professionally and with the State Industrial Commission and the State Compensation Insurance Fund representatives toward the solution and acceptance of its fee schedule satisfactory to all.

"Specifically, your Reference Committee recommends that the present Committee on Prepayment Services continue to develop as at present a proposed fee schedule and that they approach the proper representatives of the State Industrial Commission and State Compensation Insurance Fund towards the completion of this goal.

"Your Reference Committee further recommends that members of various specialty groups involved again be notified and be given an opportunity to express their opinions in a meeting of this Committee; and it also recommends and implores that the individual members of the State Medical Society negotiate for ideas through this Committee, within this professional body, rather than through extra-medical sources. It is evident to us as a result of this Committee's investigation that (1) the proposed fee schedule to be submitted was very adequate; (2) there is considerable possibility that representatives of the State Compensation Insurance Fund and the State Industrial Commission want to be co-operative; and (3) a method of fee payment satisfactory to all medical doctors can be worked out.

"In addition, this Reference Committee wishes to point out, as a further result of its investigation, that the doctors doing work for the State Compensation Insurance Fund and Commission should exert a normal effort to render the proper reports and always maintain a quality of work consistent with the level of good medical practice. In a very few cases this apparently had not been the case in the past.

"Your Reference Committee also recommends that the Committee on Prepayment Services be given every encouragement by the Colorado State Medical Society acting as a body and by its individuals toward the attainment of its goal of attaining proper intra-professional relationship and also proper relationship with the State Compensation Insurance Fund and the State Industrial Commission. Your Committee also suggests bearing in mind that each individual doctor has a certain right to express his own opinions regarding matters about which he may be asked; that should unilateral action be taken by individual members of this Society in regard to the work that this Committee on Prepaid Medical Services occur, that that unilateral action, being definitely detrimental to the welfare of the Colorado State Medical Society as a whole, that proper disciplinary action be taken through the proper authorities and channels.

"Your Reference Committee recognizes that the work thus far on the part of the Committee on Prepayment Services has been thorough, long and arduous, and, as of this date, thankless. The members of the Reference Committee can readily see why the members of the Prepayment Services Committee should be discouraged and rather disgusted. They are dealing with a problem concerning medical doctors and sincere non-medical members of the State Compensation Insurance Fund and the State Industrial Commission. Their position is a peculiar one in that their efforts and accomplishments can be jeopardized by the statements and advice of a single or small group of their fellows in medicine and, although the opinions of those individuals may be sincere, they may be ill-advised.

"Your Reference Committee suggests that when the welfare of the relationships of the Colorado State Medical Society with outside bodies as a whole is concerned, it might be well for individuals to suppress their individual desires and opinions in favor of the welfare of the body as a whole.

"Your Reference Committee also wishes to indicate that the individual members of the Reference Committee do not necessarily have the same opinion regarding their ideas or desires in asserting a Single or a Double Fee standard, in State Compensation Insurance Fund radiology; but they are unanimous in indicating that, regardless of what their personal opinions are, they should abide by the decision of the House of Delegates' majority vote as a whole.

"In conclusion, your Reference Committee wishes to congratulate, thank and to publicly express before this body their sincere appreciation of the work of the Committee on Prepayment Services and of its thorough and accurate report that has been presented by its Chairman before this House of Delegates Meeting.

"Your Reference Committee thinks that this Prepayment Services Committee, as well as the several Committees before it, deserves more consideration and cooperation than they have to the present obtained from this medical body as a whole. And, although the Committee consists both of specialists and general men, they have been farsighted enough to see that the Colorado State Medical Society's welfare as a whole is of primary importance in this particular problem and have worked toward that end.

"Your Reference Committee believes that the number of meetings and the hours of work by this Prepayment Services Committee should not be jeopardized by the actions of a few individuals. Your Reference Committee sincerely

for APRIL, 1957

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hopes that this will not be the case from now on."

(The above section of the Reference Committee report was discussed by Drs. William S. Curtis, V. V. Anderson, Thomas K. Mahan, Cyrus W. Anderson, Robert P. Harvey, and Thomas Kennedy, and in response to a question, Secretary Sethman read excerpts from the proceedings of the House of Delegates at the 1956 Annual Session. Dr. Harvey then offered amending motions as indicated below.)

Dr. Harvey moved that the report be amended to show that this House goes on record as favoring a single radiology fee schedule for Workmen's Compensation cases. The motion was properly seconded and carried by viva voce vote.

Dr. Harvey then moved that the report be further amended to show that this House gives approval to the fee schedule as drawn up by the Prepayment Services Committee and that it be presented to the State Industrial Commission for approval. The motion was seconded and carried without dissent. (The fee schedule referred to had been mimeographed and previously distributed.—Sec'y.)

The Reference Committee report as a whole, as just amended, was then adopted without dissent on motion of Dr. R. R. Anderson, seconded by several.

#### **Report of the Reference Committee on Miscellaneous Business**

Chairman R. B. Richards presented the following report of the Reference Committee on Miscellaneous Business which was adopted section by section and as a whole without dissent:

"Your Reference Committee recommends the approval of the Report of the Committee on the Rocky Mountain Medical Conference published on pages 18 and 19 of the Handbook and commends this Committee for the work it has done.

"Your Reference Committee recommends approval of the Report of the Committee on Scientific Program published on pages 20 and 21 of the Handbook, and commends the Committee for its efforts in this direction.

"Your Reference Committee recommends adoption of the Report of the Committee on American Medical Education Foundation as delivered at the First Meeting of the House of Delegates, except for the suggestion in item 4; the problem of additional, compulsory dues, to increase the AMEF Fund was discussed, and in rejecting this suggestion, it was felt that a better-organized voluntary campaign, at a local level, throughout the state would be more effective. Your Reference Committee commends the Committee for its work.

"Your Reference Committee recommends the acceptance of the Report of the Polio Vaccination Committee, except for item number four which it recommends to be changed to read as follows:

"It is recommended that all doctors who are members of the Colorado State Medical Society set aside the month of March for their offices to be polio vaccination stations; and it is recommended that the maximum of \$3 per injection be charged, which is the approximate cost for administration."

"The Reference Committee recommends approval of the preamble to the resolution submitted by the Morgan County Medical Society and that the resolution be rewritten as follows:

"That the Colorado State Medical Society through the direction of an appropriate committee does hereby enter negotiation with the proper authorities of the University of Colorado, the Emily Griffith Opportunity School, or other recognized educational facilities, for the creation or institution of a program for the purpose of educational studies for medical office personnel."

Secretary Sethman asked for a clarification of the clause: "It is recommended that the maximum of \$3 per injection be charged" in the above report.

"Does it mean that it is recommended that everybody charge \$3? Or is that the highest charge that should be made? I will be asked that question and I do not want to put any doctor in a bad position when I answer questions from the newspapers."

Chairman Richards: "The Committee interpreted that as the maximum charge as so stated for one single injection; not more than \$3. They could charge less."

Chairman Richards further explained: "The basic cost of polio vaccine varies somewhat as reported to members of this Committee, from 80 cents a c.c. to \$1 a c.c. Apparently the prices of the druggists vary a little bit, and it was felt that the total of \$3 including the vaccine, expense of handling, and vaccination in the office, was probably just about the actual cost. There was to be no profit for the doctor. It was to be a public service at that fee, and that is one reason we put that additional sentence in, because we thought it should be known that we feel that that is the approximate cost to the private physician for giving one polio shot."

In further explanatory discussion by Drs. Frank McGlone, Terry J. Gromer, and Chairman Richards of the Reference Committee, it was pointed out that the recommendation for this fee in private practice immunizations was not intended to deter any component society from organizing mass inoculation programs in their communities.

The Secretary certified that there was no unfinished business remaining on his desk. It appeared to Speaker Swartz that the House had concluded its business for this Mid-Winter Session and Secretary Sethman certified his official desk was cleared, and after routine announcements Speaker Swartz declared the business of the House was concluded and declared it adjourned without day.

The foregoing minutes of the House of Delegates are respectfully submitted to the Society.

HARVEY T. SETHMAN,  
Secretary, House of Delegates.



**RULES OF GRIEVANCE COMMITTEE**  
of the  
**COLORADO STATE MEDICAL SOCIETY**  
(As Revised, January 12, 1957)

**1. Purposes of the Committee:**

(a) To act as the Society's "grand jury" for investigating complaints and/or initiating investigations concerning professional conduct and ethical deportment. In furtherance of this purpose, this Committee may require periodic reports from similar Boards or Committees organized by Component Societies.

(b) To prepare, for issuance to the entire membership in bulletin form through the Executive Office, periodic bulletins on ethical deportment containing definite educational advice to physicians in this regard.

(c) To initiate and prosecute, just as would a grand jury in civil procedures, charges against any physician deemed by the Committee guilty of unprofessional conduct. These charges may, in the discretion and judgment of the Committee, be filed originally with the Board of Censors of any Component Society, direct with the Councilor of the appropriate district of the State Society, direct with the Board of Councilors of the State Society, direct with the State Board of Medical Examiners, or direct with any criminal court, according to the nature of the charges.

(d) By way of further definition, it should be understood that the Grievance Committee has no final jurisdiction in a judicial way. Just as would a grand jury, it will receive and pass its own judgment upon evidence, but it will not assume authority to discipline any physician. It may at any time express its advice to a member of the Society on any matter pertaining to professional conduct.

(e) In pursuance of its function as a grand jury within the structure of the Society, the Committee shall have the power and authority to summon members of the Society to appear before it, either in connection with complaints involving the members summoned or as witnesses in cases involving other members. In case any member shall fail to respond to such summons, the Grievance Committee shall cite the member before the Board of Councilors for contempt proceedings.

**2. Standards of Conduct:** The current edition of the "Principles of Medical Ethics of the American Medical Association," as interpreted from time to time by the Board of Councilors of the Colorado State Medical Society for this state, shall be the final standard by which all professional conduct and ethical deportment are determined.

**3. Organization of Committee:** The Committee annually elects a Chairman, a Vice Chairman, a Secretary and an Assistant Secretary from among its own members. The Secretary and Assistant Secretary shall always be Committee members

from Denver or an immediately adjoining county. The By-Laws of the Society permit any member of the Committee to participate in the deliberation of questions concerning the conduct of a physician residing in the jurisdiction of that Committee member's Component Society, subject to objection by any interested party. In view of this fact the Vice Chairman may preside in all cases involving a member of the Chairman's district, and the Assistant Secretary may serve as Secretary in all cases involving a member of the Secretary's district. Thus, two disinterested officers of the Committee may always assume these functions. Any person against whom an accusation is made will be informed that the member of the Committee residing in his district can be excused during the deliberation of that case if any person concerned in the matter so desires. In any case, the Acting Chairman of the Committee may instruct the Committee member in the accused's district to undertake preliminary investigation, obtain information, and report to the Committee, in order to expedite proceedings and eliminate unnecessary travel.

**4. Limitation on Attendance; Professional and Technical Assistance:**

(a) Except as provided for in these Rules, no person other than elected members of the Committee and any witnesses then being heard will be admitted to any part of the proceedings when a complaint is being considered.

(b) The Committee may request professional or technical assistance from the Society's retained General Counsel or from any Executive Employee of the Society, including attendance upon any part of the Committee's proceedings except its executive sessions. Should it become necessary in the opinion of the Committee to take verbatim testimony in any case, the Committee may obtain the services of a certified shorthand reporter licensed by the State of Colorado for such purposes, under the provisions of Rule 5-k.

(c) In the event the Committee reaches the point, in any investigation, where the Committee feels it should file and prosecute charges against a physician before any judicial body, the Committee will, before filing such charges, consult with the retained General Counsel of the Society to determine the sufficiency of the evidence.

(d) Any person retained or employed by the Society who through the operations of these rules attains knowledge of a complaint pending before the Committee shall be subject to the same rules of confidence and secrecy imposed upon members of the Committee.

**5. General Procedure:**

(a) The Committee will receive complaints either verbally or in writing from any person, whether or not he or she be a physician, a member of the Society, an employee of the Society,

a patient of a physician, or any other person, lay or professional.

(b) The Committee will respect the completely confidential nature of any complaint, provided that any complainant unwilling to appear personally before the Committee will be given to understand that such unwillingness prejudices against the possibility of the Committee's being able to make a complete investigation. Every complainant may be invited to appear before the Committee with the assurance that even the fact of his appearance before the Committee, as well as the origin of the complaint, will be kept confidential; provided, however, that should any form of prosecution result the Committee will of necessity reveal the names of prospective witnesses, even though these names may include that of the complainant.

(c) The Secretary of the Committee will acknowledge receipt of all complaints, either verbally or in writing as the circumstances of each case indicate to be wiser. The Secretary will likewise, in consultation with the Chairman, arrange for meetings of the Committee with such frequency as may be necessary so that investigation of each complaint is carried out with reasonable dispatch, and will notify complainants and any other persons whom the Committee wishes to interview concerning meeting dates and places. The Secretary will, at all times, keep the Chairman informed concerning the progress of investigations conducted otherwise than at meetings of the Committee.

(d) The Chairman, on receipt of information from the Secretary concerning each new complaint, shall determine or shall authorize the Secretary to determine whether first investigation or action on the complaint should be made by the whole Committee in meeting, or whether an informal investigation should first be made by assignment (a) to one or more members of the Committee, (b) to an appropriate Board or Committee of a Component Society, or (c) to one or more members of the Society selected by this Committee for this specific purpose. Any persons to whom such an assignment is made shall promptly report their findings to this Com-

mittee in writing or in person, and in all instances shall bear in mind the confidential nature of these investigations. Similar procedures may be carried out to expedite any investigation initiated by this Committee on its own motion.

(e) When an informal investigation like that referred to next above has convinced at least two members of the Committee that no disciplinary action is indicated and that both the complainant and the physician involved are willing to accept the advice of the Committee for reconciliation of the complaint, the advice and suggestions of the Committee shall be reduced to writing and supplied to both complainant and the physician concerned, over the signature of the Acting Chairman.

(f) When an informal investigation like that referred to in (d) above convinces any disinterested member of the Committee that disciplinary action is indicated, the entire Committee except any excused member shall consider the matter formally in meeting before further action is taken, and further action shall be determined by majority vote of those present.

(g) When, after investigation and attempts to effect amicable settlement, the Committee is unable to reconcile differences over fees charged by a member of the Society, the Committee shall by a majority vote determine the fee which it deems fair and proper. In case the Society member shall agree to the amount so fixed and shall fail to abide by his agreement, the Grievance Committee shall cite such member before the Board of Councilors for contempt proceedings. Failure of the member to agree to such determination of the Grievance Committee shall constitute grounds for the preferring of charges of unprofessional conduct under the principles of ethics.

(h) Whenever the Committee determines to file charges against a member of the Society with either a Board of Censors or the Board of Councilors, the charges shall be reduced to writing and filed over the signature of two officers of the Committee and over the typed signatures of all other members of the Committee who have taken part in the proceedings.

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## The Colorado State Medical Society

### OFFICERS—1956-1957

Terms of Officers and Committeemen expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** George R. Buck, Denver.  
**President-Elect:** Gatewood C. Milligan, Englewood.  
**Vice President:** C. Walter Metz, Denver.  
**Constitutional Secretary** (three years): James M. Perkins, Denver, 1957.  
**Treasurer** (three years): William C. Service, Colorado Springs, 1959.  
**Additional Trustees** (three years): Lawrence D. Buchanan, Wray, 1957; Ray G. Witham, Craig, (to fill vacancy) 1957; Terry J. Gromer, Denver, 1958; Bernard T. Daniels, Denver, 1959.

(The above nine officers compose the Board of Trustees of which Dr. Buck is Chairman and Dr. Metz is Vice Chairman for the 1956-1957 year.)

**Board of Councilors** (three years): District No. 1: Osgood S. Philpott, Denver, 1957; District No. 2: Roger G. Howlett, Golden, 1959; District No. 3: Harry C. Bryan, Colorado Springs, 1958; District No. 4: Paul R. Hildebrand, Brush, 1957; District No. 5: John D. Gillaspie, Boulder, 1957, Vice Chairman; District No. 6: Harvey M. Tupper, Grand Junction, 1958; District No. 7: Charles L. Mason, Durango, 1958; District No. 8: Herman W. Roth, Chairman, Monte Vista, 1959; District No. 9: Scott A. Gale, Pueblo, 1959.

**Grievance Committee** (formerly the Board of Supervisors) (two years): Duane F. Harshorn, Chairman, Ft. Collins, 1957; Kenneth H. Beebe, Vice Chairman, Sterling, 1957; Freeman H. Longwell, Secretary, Denver, 1958; Lawrence W. Holden, Boulder, 1957; Robert C. Lewis, Jr., Glenwood Springs, 1957; James S. Orr, Fruita, 1957; Gordon R. Vandiver, La Junta, 1958; Robert H. Smith, Colorado Springs, 1958; George G. Balderston, Montrose, 1958; Ligon Price, Mt. Harris, 1958; Walter M. Boyd, Greeley, 1959; William N. Baker, Pueblo, 1957.

**Delegates to American Medical Association** (two calendar years): E. H. Munro, Grand Junction, 1957; (Alternate, Harlan E. McClure, Lamar, 1957); Kenneth C. Sawyer, Denver, 1958; (Alternate, Irvin E. Hendryson, Denver, 1958).

**Speaker, House of Delegates:** Carl W. Swartz, Pueblo; **Vice Speaker:** Frank B. McGlone, Denver.

**Foundation Advocate:** Walter W. King, Denver.

**Executive Office Staff:** Mr. Harvey T. Sethman, Executive Secretary; Mrs. Geraldine A. Blackburn, Executive Assistant; Mr. John W. Pompell, Executive Assistant; 835 Republic Building, Denver 2, Colorado; Telephone AComa 2-0547.

**General Counsel:** Mr. J. Peter Nordlund, Attorney-at-Law, Denver.

## The Wyoming State Medical Society

**Annual Session; June 16-19; Jackson Lake Lodge, Moran, in Conjunction with the Rocky Mountain Medical Conference**

### OFFICERS—1956-1957

**President:** J. S. Hellewell, Evanston.  
**President-elect:** H. B. Anderson, Casper.  
**Vice President:** L. Harmon Wilmoth, Lander.  
**Secretary:** Benjamin Giltitz, Thermopolis.  
**Treasurer:** C. D. Anton, Sheridan.  
**Delegate to A.M.A.:** A. T. Sudman, Green River.  
**Alternate Delegate, A.M.A.:** B. J. Sullivan, Laramie.  
**Executive Secretary:** Mr. Arthur R. Abbey, Cheyenne.  
**Councilors\*:** Frederick Haigler, 1959, Casper; Nels Vicklund, 1959, Thermopolis; Joseph Whalen, 1959, Evanston; Wm. Hinrichs, 1958, Douglas; Loran B. Morgan, 1958, Torrington; Francis A. Barrett, 1957, Cheyenne; Joseph E. Hoadley, 1957, Gillette; **Ex-Officio:** J. S. Hellewell, **President-Chairman:** Benjamin Giltitz, Secretary.

## Montana Medical Association

### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated, the term is for one year only and expires at the 1957 Annual Session.

**President:** Edward S. Murphy, Missoula.  
**President-Elect:** John A. Layne, Great Falls.  
**Vice President:** Herbert T. Caraway, Billings.  
**Secretary-Treasurer:** Theodore R. Vye, Billings.  
**Assistant Secretary-Treasurer:** Park W. Willis, Jr., Hamilton.  
**Executive Committee:** Edward S. Murphy, Missoula, Chairman; John A. Layne, Great Falls; Herbert T. Caraway, Billings; Theodore R. Vye, Billings; Park W. Willis, Jr., Hamilton; George W. Setzer, Malta; John J. Malce, Anaconda.  
**Executive Secretary:** Mr. L. R. Hegland, P. O. Box 1692, Office Telephone 9-2585, Billings.  
**Delegate to American Medical Association:** Raymond F. Peterson, Butte; alternate, Paul J. Gans, Lewiston.

## The Utah State Medical Association

**Annual Session; September 5-7; Salt Lake City**

### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** James Z. Davis, M.D., Salt Lake.  
**President-Elect:** Reed W. Farnsworth, M.D., Cedar City.  
**Past President:** R. O. Porter, M.D., Logan.  
**Honorary President:** C. N. Ray, M.D., Salt Lake.  
**Secretary:** J. Poulsen Hunter, M.D., Salt Lake.  
**Executive Secretary:** Mr. Harold Bowman, Salt Lake.  
**Treasurer:** Alan P. Macfarlane, M.D., Salt Lake.  
**Councilor, Box Elder Medical Society:** J. H. Rasmussen, M.D., Brigham City.  
**Councilor, Cache Valley Medical Society:** C. C. Randall, M.D., Logan.  
**Councilor, Carbon County Medical Society:** L. H. Merrill, M.D., Hiawatha.  
**Councilor, Central Utah Medical Society:** L. H. Merrill, M.D., Hiawatha.  
**Councilor, Salt Lake County Medical Society:** James F. Orme, M.D., Salt Lake.  
**Councilor, Southern Utah Medical Society:** L. H. Merrill, M.D., Hiawatha.  
**Councilor, Utah Basin Medical Society:** T. R. Sager, M.D., Vernal.  
**Councilor, Utah County Medical Society:** L. H. Merrill, M.D., Hiawatha.  
**Councilor, Weber County Medical Society:** I. B. McQuarrie, Ogden.  
**Delegate to the A.M.A., 1955-57:** George M. Fluter, M.D., Ogden.  
**Alternate:** Elliot Snow, M.D., Salt Lake City.  
**Editor of the Utah Section of the Rocky Mountain Medical Journal:** R. P. Middleton, M.D., Salt Lake.

## New Mexico Medical Society

**75th Anniversary Meeting; May 15-17, Santa Fe**

### OFFICERS—1956-1957

Terms of Officers expire at the Annual Session in the year indicated. Where no year or term is indicated, the term is for one year only and expires at the 1957 Annual Session.

**President:** Stuart R. Adler, Albuquerque.  
**President-Elect:** Samuel H. Ziegler, Espanola.  
**Vice President:** James C. Sedgwick, Las Cruces.  
**Secretary-Treasurer:** Lewis M. Overton, Albuquerque.  
**Executive Secretary:** Mr. Ralph R. Marshall 223-24 First National Bank Building, Albuquerque; telephone 2-2102.  
**Immediate Past President:** Earl L. Malone, Roswell.  
**Councilors** (three years): W. E. Badger, Hobbs, 1957; W. D. Dabbs, Clovis, 1957; W. O. Connor, Jr., Albuquerque, 1958; L. L. Daviet, Las Cruces, 1958; Aaron Margulies, Santa Fe, 1959; Junius A. Evans, Las Vegas, 1959.  
**Delegate to American Medical Association** (two years): H. L. January, Albuquerque, 1958; **Alternate:** Earl L. Malone, Roswell, 1958.  
**Board of Supervisors:** A. J. Jensen, Hobbs, Chairman, 1957; W. J. Hostley, Deming, Secretary, 1957; Milton Floersheim, Jr., Raton, 1957; George W. Prothro, Clovis, 1957; A. D. Maddox, Las Cruces, 1958; G. A. Slusser, Artesia, 1958; Louis Levin, Belen, 1958; Jack Dillahun, Albuquerque, 1958.

**New Mexico Physicians Service:** H. M. Mortimer, Las Vegas, 1957; H. L. January, Albuquerque, 1957; Fred Hamold, Albuquerque, 1957; L. L. Daviet, Las Cruces, 1957; O. C. Taylor, Jr., Artesia, 1957; C. S. Stone, Hobbs, 1957; R. P. Beaudette, Raton, 1958; R. V. Seligman, Albuquerque, 1958; Wendell Peacock, Farmington, 1958; Omar Legant, Albuquerque, 1958; Allen Haynes, Clovis, 1959; W. L. Minton, Lovington, 1959; J. P. Turner, Carrizozo, 1959; U. S. Marshall, Roswell, 1959; J. W. Hillsman, Carlsbad, 1959; **Executive Director:** Mr. L. J. LeGrave, 212 Insurance Building, Albuquerque, Phone 3-3188.

## Colorado Hospital Association

### OFFICERS, 1956-1957

**President:** Robert A. Pontow, Colorado General Hospital, Denver.  
**President-Elect:** Roy Prangely, St. Luke's Hospital, Denver.  
**Vice President:** Msgr. John R. Mulroy, Catholic Hospitals, Denver.  
**Treasurer:** Walter Dubach, Children's Hospital, Denver.  
**Trustees:** Harry Clark (1957), Southwest Memorial Hospital, Cortez; Elton A. Reese (1957), Alamosa Community Hospital, Alamosa; Roy Anderson (1957), Presbyterian Hospital, Denver; C. Franklin Fielden (1958), Memorial Hospital, Colorado Springs; Lewis Liswood (1958), National Jewish Hospital, Denver; Milton Speicher (1958), Wray Community Hospital, Wray; John Peterson (1959), Larimer County Hospital, Fort Collins; Hubert Hughes (1959), General Rose Hospital, Denver; Jacob Horowitz (1959), Denver General Hospital, Denver.  
**Blue Cross Representative on Board of Trustees:** Glenn Saunders, Denver.  
**Delegate to the American Hospital Association:** H. E. Rice, Porter Sanatorium and Hospital, Denver; **Alternate Delegate:** H. H. Hill, Weld County Hospital, Greeley.

## ROCKY MOUNTAIN MEDICAL JOURNAL

In the event that, in consideration of a case involving complaint against a physician who is not a member of the Medical Society, it is determined that disciplinary charges should be filed against the doctor with a Board of Censors or the Board of Councilors were he a member of the Society, but it is also determined that the evidence does not justify proceedings before the State Board of Medical Examiners or a criminal court, the Committee shall reduce its findings to writing and, subject to advice of legal counsel, shall notify the physician concerned of its findings and shall file a copy of this notice with the Executive Office of the State Society and the Secretary of the State Board of Medical Examiners for future reference.

(i) Both the original complainant and the physician against whom the complaint has been made will be furnished with a written statement and explanation of the final decision of the Committee as soon as possible after the Committee has completed its investigation of the case, whether (1) the Committee considers the case closed or (2) decides to file charges with a judicial body. Any interested party dissatisfied with the final decision of the Committee will be accorded the privilege of appealing that decision in writing to the Board of Councilors of the Society.

(j) Immediately after each meeting of the whole Committee, the officers of the Committee shall prepare and deliver to the Executive Office of the Society, a memorandum suitable for inclusion in the monthly News Exchange, concerning any non-secret actions taken or general advice arrived at concerning the status of ethical deportment within the Society. In the event it is desired that such material be made the subject of a special bulletin to the entire membership of the Society, the Committee shall make this decision known to the Executive Secretary.

(k) Whenever the Committee determines that contemplated actions of the Committee, other than bulletin services indicated next above, will require use of certified shorthand reporters, telegraph or long distance telephone service, travel expense, or other matters involving State Society finances aside from routine services of the Executive Office, the Committee will notify the Board of Trustees of the Society through the Executive Secretary, and estimate the financial requirements of the action then contemplated.

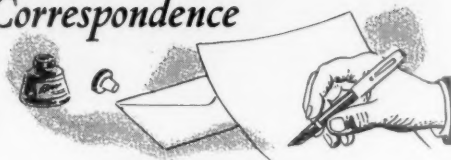
(l) Officers of the Committee shall keep appropriate and sufficient records of all of its final actions, other than confidential matters, and shall submit semi-annual reports to the House of Delegates.

—As revised by the Grievance Committee in meeting January 12, 1957.

Revision approved by the Board of Councilors, February 20, 1957.

for APRIL, 1957

## Correspondence



(Continued from Page 316)

cover only the cost of vaccine (usually about 80 cents) plus the out-of-pocket cost for technicians and equipment rental at the clinics.

"Yes, you should have known all these things from your own files. You should also have known of the miserable failures of the British socialized system which you extol so inaccurately. Or did you know, and choose to ignore the facts?

"As it has usually been in the past, so undoubtedly will it continue throughout this 1957 vaccination campaign. The doctors will donate their time, and donate some of their own money through their medical society dues; everyone else will be paid, and all during the campaign and afterward a few congenital 'aginners' who oppose anything that is successful will ignore the plain facts and damn the A.M.A.!

(The following paragraphs, included in the original letter, were omitted from the letter as printed in the Arapahoe Herald. —Ed.)

"I would be the last to deny you your American right to like whom you please, hate whom you wish, and exercise your freedom of the press to the fullest. But all freedom carries with it responsibility, and your readers are entitled to more responsible reporting, even in editorials, than you have recently displayed.

"Why not cooperate for once, get the facts and get behind this campaign to stop polio instead of misleading readers to believe that polio shots are stopped?

"Very truly yours,  
"HARVEY T. SETHMAN,  
"Executive Secretary,  
"Colorado State Medical  
Society."

Thank you, Mr. Sethman. We believe that the newspaper's editor is appropriately chastised and our profession adequately and properly defended. The medical profession receives considerable unfair and unfounded criticism. Much of this goes unchallenged and our physicians undefended because few doctors have the time, inclination, or ability to wield the pen.



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Terms. Retiring from medicine. T. K. Preston, M.D.,  
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recently completed. Eligible both boards. Desires  
position in west or northwest. Available July 1,  
1957. Richard J. Taylor, M.D., Massachusetts Gen-  
eral Hospital, Department of Pathology, Boston,  
Massachusetts. 43

**GENERAL SURGEON**—38; Board certified; univer-  
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license; desires clinic, group, or partnership asso-  
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Colo.

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hospital available 28 miles. Box 468, Upton, Wyoming.  
44

**COLORADO GRADUATE**, Colorado licensed, aged 30,  
just completing residency in internal medicine,  
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# EDITORIALS

IT IS ironical that because of high taxes, ten million self-employed citizens in this country are in a position where it is almost impossible to create an old age retirement

fund out of current income. For those of us who are self-employed, there are no easily available retirement pro-

## **Jenkins-Keogh Bill**

grams. Present tax laws render them unworkable and financially unobtainable. At the same time, millions of our fellow citizens find present income tax laws help them to retire. Working for others rather than themselves, gives them the opportunity to participate in employees pension plans. As you know, money is paid into these trustee or insured plans by an employer and is deemed a business expense. This constitutes a tax deduction for the employer. More important to the employee is the fact that he does not have to pay income tax on his company's contribution for the increments that are due until the benefits are actually paid out. Ten million self-employed taxpayers have no such tax deferment right.

It might be argued that the solution to the problem would be to actively seek coverage under the governmentally controlled social security laws. However, this governmental control is again a blow at initiative, self-reliance, and a sense of responsibility which through the long years have made this country great. There is another solution which many people who have studied the problem carefully feel will answer the problem adequately for the self-employed, and at the same time preserve those qualities for which we stand. This plan is outlined in the proposed national legislation known as the Jenkins-Keogh bills. At the present time, these bills are in the Ways and Means Committee of the House of Representatives. You undoubtedly will be hearing much more about them within the next two or three months. In brief, the legislation allows the self-employed person to deduct

from gross income each year a limited amount of self-employment income contributed by him to a restricted retirement fund or paid in as premiums to purchase an insurance policy with retirement features. He can deduct annually up to 5,000 dollars or ten per cent of self-employment income, whichever is less, but not more than a total of 100,000 dollars during his lifetime. In addition, an individual who has reached the age of fifty before the effective date would be allowed to deduct an additional amount to help him build up an adequate interest in the fund, or to obtain more than a token annuity. In his case, the normal deduction limit is increased by one-tenth per cent for each year of age over seventy. The contributions made plus accumulations become taxable when distributed and may be withdrawn at any time. However, where withdrawals take place before the age of sixty-five, the tax is ten per cent greater than otherwise payable. The payment is treated as having been received pro rata during the taxable year and the four preceding years. Lump sum payments after sixty-five are also given special treatment.

In an effort to push this legislation, thirty national organizations representing the self-employed have banded together, and formed an organization known as the American Thrift Assembly. Among these organizations are the American Bar Association, the American Medical Association, the American Dental Association, the American Institution of Accountants, the National Association of Retail Druggists, the National Association of Real Estate Boards and many others. The stated objectives of the ATA are simply to steer this legislation successfully through the House and the Senate.

It would be well for us all in considering the future to give a small amount of time to help see that these bills become law. A brief note to a member of the House Ways and Means Committee or to our own repre-

sentatives in Congress, would be an initial step in the right direction. A little word of mouth campaigning and encouragement to other self-employed persons to take similar steps would ease your tax burden at the present, and provide an adequate income for your future.

I. E. HENDRYSON,

President, Denver Medical Society.

Reprinted from *Denver Medical Bulletin*, April, 1957

Express your views on this legislation to your Congressman or to any of the committee members listed below.

#### WAYS AND MEANS COMMITTEE

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**T**HE British Medical Association has endorsed a strike by Britain's physicians against the National Health Service. The Association's general council said that the general practitioners will be advised to resign from the service unless the government raises their fees 24 per cent or proceeds with productive arbitration.

#### Voices From Britain!

Eyes of the world are upon this crisis in the largest socialized medical program in the history of our profession. It appears

that the people of England finally realize their total cost of medical care has been greater, the plan has been over-utilized, and the quality of care to the patient has deteriorated.

We in America have wondered what would happen if all physicians should strike. Such is not the way of doctors of medicine, nor is it the American way—but it would be enlightening.

Perhaps we now shall witness the effects of a "trial run" of a medical strike in our mother country. With more and more agencies telling us how much our services are worth, raising the salaries of their employees and payments to hospitals—while clinging to pre-war medical and surgical fees and even less—we wonder how long the doctors of America will carry on before they one day may follow the Old World pattern.

One thing we predict, in either country, is the patients will not be neglected one way or another. Their medical requirements will be fulfilled by our profession, prepaid plans both industrial and private may increase, but obviously the method of payment will not, in the final analysis, be through the government. This we hope and fervently believe!

**O**NE more fantastic development in medicine is work now being done in which animal fetuses are exposed *in utero* to animal proteins from another of the same species.

#### Homographs and Permanent Takes

The injected fetus is immunologically altered, presumably for life, so that when mature he will not form antibodies against those same animal proteins should he be exposed to them again. This means that the injected animal will accept and keep permanently homologous surgical transplants and will not reject them as would have been the case normally.

This opens up the possibility that human fetuses might be similarly immunized so that in adult life, should they need homologous transplants of skin or organs



such as liver, kidney or lungs, they could be permanently accepted. Up until now, only those who have an identical twin or who suffer from agammaglobinemia (i.e., no antibodies) will accept homologous transplants. Medical Science Fiction marches on!

RECENTLY most of us received in the mail Volume I, Number 1 of a new publication. We would like to welcome officially this new magazine to our family of medical journals. "MD Medical

### Family Addition

Magazine" is different, however. It is not of the same stamp as our national and state medical journals. This is a Newsweek or Time sort of publication designed specifically for physicians. To quote from MD's "Editor's Message":

MD embodies a new concept of medical journalism. Medical journals are usually dedicated to satisfying the professional needs of the physician, leaving his many other interests to lay journals. MD is dedicated to satisfying all the needs of the physician—medical, cultural, and social.

Through word and image—the word simple, the image vivid—MD presents all the important news in medicine, travel, sports, personalities, the arts, science, politics and economics as seen through the eyes of the physician. It also portrays the role of the physician as man of action—artist, writer, sportsman, traveler, statesman—in today's world.

True to Osler's words, MD will "create, transmute and transmit" news and events for the physician. It will inform him, guide him, and entertain him.

Beyond the office and the microscope throbs a wide, exciting world. From its brightly lighted chambers, MD provides the physician with a picture window on this world.

FELIX MARTI-IBASEZ, M.D.

Publisher and Editor-in-Chief.

Remember that vague guilty feeling you had recently as you sat down to read the Sunday funnies, Life or Esquire—knowing there were three JAMA's and two RMMJ's lying unopened on your desk? Often, when you want to relax, it is just plain work to wade through a medical journal; even we admit that! Well, here is one magazine with

which you can relax; read it and you probably won't feel guilty.

The writing unfolds in an easy newspaper style; news is of many varieties. Thumbnail biographies of physicians, in their vocations and avocations, plus many pictures add to its personality. Through it are scattered enough sugar coated medical pearls to make the reading easy to take and very nutritious. We wish MD success in this courageous innovation in medical journalism.

THE message below, in letter form, is available through the Arkansas Medical Society\* to members of the medical profession. A supplement to the familiar AMA office display plaque on fees, the letter could be mailed to your patients, in monthly statements, or given to them in the office. A personal touch would be effected by having this letter (or your own variation of the message) reproduced on your office stationery.

### More About Fees and Public Relations

Nothing is more important to a happy practice than confidence engendered by friendliness and good will. Your sincerity, fairness, and personal interest would be enhanced by this gesture:

### CERTAINLY, LET'S TALK ABOUT FEES . . .

In this day and age I think we all are faced with many similar financial problems. Though our incomes may be derived from different sources, our expenditures, for the most part, consist of food, clothing, shelter and other expenses including medical care.

As your personal physician, I know you understand that my income is derived solely from my fees—fees which I believe to be entirely reasonable. However, should you ever have any financial worries, I am most sincere when I say that I invite you to discuss frankly with me any questions regarding my services or my fees. The best medical care is based on a friendly, mutual understanding between doctor and patient.

You've probably noticed that I have a plaque in my office which carries this identical message to all my patients. I mean it—

Sincerely,

....., M.D.

\*215 Kelley Building in Fort Smith, Arkansas.

# Free Choice of Physician

*FINDINGS AND CONCLUSIONS of the Board of Councilors of the Colorado State Medical Society concerning the ethics of physician-participation in organized medical care plans which deny or appear to deny the right of patients freely to choose their physicians.*

*Effective Date: May 1, 1957.*

## Introduction

In publishing this official Opinion to the membership of The Colorado State Medical Society (and, as a matter of common interest, to the physicians of all Rocky Mountain states), the Board of Councilors presents a digest and the Board's interpretation of the applicable provisions of the Constitution and By-Laws of the Society, of the Principles of Medical Ethics of the American Medical Association, and of related actions of the House of Delegates and other bodies of the Society relating to the principle of the Free Choice of Physician, as a guide to the conduct of Colorado physicians and as a guide to judicial decisions within this Society.

## I. Authority of the House of Delegates

The Constitution of the Colorado State Medical Society contains the following provision:

Excerpt from Article V, entitled "House of Delegates."

"Section 1. General Powers. There shall be a legislative and business body known as the House of Delegates. . . . It shall exercise the delegated powers of the members of the Society as a whole, and of the component societies as units."

## II. Authority of the Board of Councilors

The By-Laws of the Colorado State Medical Society contain the following provisions:

Excerpt from Chapter VII, entitled "Duties of Boards, Officers, and Grievance Committee":

"Section 11. Board of Councilors. The Board of Councilors shall have supreme charge of all questions of ethics and discipline of members and shall be the board of censors of this Society. . . . It shall have and exercise original jurisdiction over and decide finally for this Society all questions of ethics, discipline, or right to membership submitted to it by the general meeting, the House of Delegates, the Board of Trustees, the Grievance Committee, or the Committee on Constitution, By-Laws and Credentials. . . . The Board of Councilors shall interpret the Constitution and By-Laws of the Society in all cases of misunderstanding or dispute. . . ."

Chapter XII entitled—"Principles of Ethics," provides as follows:

"The Principles of Medical Ethics of the American Medical Association shall be the rule of conduct for the members of this Society and shall, as interpreted for this Society by the Board of Councilors, be controlling in all decisions of the Board of Councilors, the Grievance Committee, and the judicial bodies of all component societies."

## III. Action of the House at the February, 1957, Interim Session

Acting under the clear authorities quoted above, the House of Delegates of the Colorado State Medical Society took two actions at its February 19-21 interim session of 1957 as follows:

A. The House, without a dissenting vote, adopted the following resolution:

"WHEREAS, we firmly believe in the principle of the free choice of physician to be one of the inherent rights and liberties of any American citizen.

"1. We recommend that this House of Delegates go on record as opposing any form of panel practice or other patient-doctor relationship which does not abide by this long-established principle of the free choice of physician as defined by the Principles of Ethics of the American Medical Association.

"2. We direct that our Delegates to the American Medical Association by resolution and all other means available to them attempt to get a strong and dynamic policy on a national basis for organized medicine to remain united and firm in dealing with medical plans which do not guarantee the free choice of physician. We also direct our Delegates to the American Medical Association to do everything in their power to gain the support of other state delegations to the A.M.A. to support such a policy.

"3. We also realize the deep responsibility of each doctor and of organized medicine to the patient's welfare. This tenet must be uppermost at all times. In carrying out the principle of free choice of doctors we must at all times do what is best for the patient.

"4. We further recommend that this Society strongly disapprove of any physician who takes part in any form of medical practice where the principle of free choice of physician does not prevail."

B. The House referred to the Board of Councilors for consideration two additional resolutions, one memorializing the Board of Councilors to take special cognizance of the applicable sections of the Principles of Medical Ethics of the American Medical Association, the other being a resolution which, if adopted by the Board of Councilors, would declare that participation by physicians in forms of medical practice which thwart, abridge, or remove the right of free choice except as specifically provided by the laws of the State of Colorado, would be considered unethical.

Discussion at the February, 1957, session in the House of Delegates, before its Reference Committees, and before the Board of Councilors emphasized the desire of the House of Delegates that the Board of Councilors issue interpretations, definitions, and guides based upon the applicable sections

of the Principles of Medical Ethics so that all members of the Society may determine with reasonable certainty the ethical status of any organization or medical plan which acts as a third party between the patient and his physician.

#### **IV. Action of the Board of Councilors, February 21, 1957**

On February 21, 1957, the Board of Councilors made a preliminary report to the House of Delegates which included the following statements:

"... your Board of Councilors is unanimous in its agreement that the principle of the free choice of physician by the individual patient is a fundamental right of all Americans. It must be realized, however, that there are many situations which preclude an absolute free choice of physician.

"... The Board of Councilors assures this House of Delegates that the Board will continue with all reasonable rapidity its study of this matter and as soon as possible will publish to the membership its findings and conclusions."

#### **V. An Outline of the Background**

A. It is now common knowledge that the quality of medical care generally throughout the United States surpasses that of all remotely comparable nations, and that the contrast is sharpest with those countries and those systems of medical practice where there is no freedom of choice. Every year, governmental and all other recognized agencies concerned with the health of the people report increasing longevity and lower mortality and morbidity in every area of health care or disease that American medicine can influence. Hundreds of today's preventive and curative medical procedures were unknown as recently as fifteen years ago and much of the medical knowledge of a generation ago is practically obsolete. From the United Nations on down, American medicine is the envy of the world. While every American physician may well be proud that he has had even a small part in this phenomenal progress, it is much more important that he remember and observe his ethical obligation to uphold and further the principles and practices and freedoms which underlie that progress. To

do less would violate his first and foremost ethical obligation, that to the present and future welfare of his patients.

B. The curtailment of free choice of physician by various types of medical care plans is not new either to Colorado or to any other part of the United States. It is a problem all of whose beginnings cannot be readily traced, but all of which date back several generations. Some of it was conceived of necessity and born to pioneering communities built by mining or railroad companies or other industries whose employees would otherwise have had no medical care at all. As such communities grew larger, revulsion against the frequently undertrained and underpaid "company doctor" who was responsible to his employer rather than to his patients started the pendulum back toward the free choice Americans had known in more established communities; more physicians were attracted, and American medicine began to develop more rapidly. Development of the legal principle that workmen are entitled both to compensation for industrial injuries and to medical treatment for such injuries at the expense of the employer slowed the swing away from the "company doctor" concept. In many states, including Colorado, the compensation laws accorded the employer, within certain legal limits, the right to select the employee's physician. Still later development of great strength by organized labor at least gave the employee a representative in collective bargaining regarding medical and other "fringe" benefits from management. As labor unions accumulated large treasuries, some of them established health and welfare funds and some of their leaders too quickly forgot the deterioration of medical care that they had so deeply resented under the old "company doctor" plan, in their zeal to buy medical care for their members as cheaply as possible. Other leaders of labor joined with management in mutual medical plans denying employees and their families free choice, so that management and labor have both been guilty—though usually with the best of basic intentions—of denying an American right which itself is essential to the best of modern medical care. This prob-

lem has grown rather slowly, but steadily in many areas, for many years, though with some notable remissions. The advent of the Blue Cross and Blue Shield concepts was perhaps the greatest corrective movement of recent years, now fortified with the still more recent development of commercial medical care and hospitalization insurance policies which now provide healthy competition with the Blue Cross-Blue Shield plans, all of them assuring patients a free choice of physician.

C. Sound insurance protection against medical and hospital costs, readily available from both commercial and non-profit organizations which guarantee free choice, has swept the nation with its popularity. This is a favorable factor toward solution of the present problem, as evidenced by the fact that some industrial medical plans which formerly curtailed free choice of physician are now buying coverage from Blue Cross-Blue Shield or from one or another commercial insurance company. Their employees are benefited because they may now choose their own physicians; the danger of deteriorating quality of medical care through impersonal "assembly-line" technics is eliminated, the patient-physician relationship is re-established, and from the industrial management or labor union a heavy administrative and actuarial burden has been shifted to the shoulders of those who are trained, experienced, and specializing in this particular type of administration.

D. The above is set down by way of explaining one reason for the problem coming into focus this past year. In other words, some industrial, labor and civic leaders who previously advocated tightly-closed panel systems of contract industrial practice which covered employees for all illness and accident in addition to Workmen's Compensation liabilities (and some of which did likewise for dependents of employees) now realize that these plans went much too far and thereby overshot the goal which both they and the medical profession desire to reach, namely the best available medical care at a cost which every patient can afford.

E. The other factor which brought the problem into recent sharp focus is the public controversy concerning current Colorado operations of the United Mine Workers of America Welfare and Retirement Fund. The general facts of this controversy are a matter of common knowledge and no good purpose would be served by their repetition here.

F. These two factors led officers of the Colorado State Medical Society to the realization that "the time has come to call a halt" to the participation of the Society's members in medical care plans, industrial or otherwise, which deny the patient the right and the proven benefits of freely choosing his own physician. Closely related was the realization by Society officers that other plans in addition to that of the U.M.W.A. Fund, some of them long existing and apparently tolerated by both the profession and the patients served with but little open complaint, were operating in a manner that denied free choice as effectively as did the U.M.W.A. Fund. In all fairness, one could not be condemned and the other condoned.

G. Studies of still other plans disclosed a multitude of variations between the extremes of what might be called "wide-open" free choice and "tight-closed" panel. Where between these two extremes is the "line of demarcation" dividing the ethical from the unethical, considering that the line must always be found where it ultimately serves the patient's best interest? All will realize that geographic isolation, economic limitations of a community, and occasionally other factors beyond practical control sometimes preclude any choice at all. Also, all realize that some federal, state, or local laws provide medical care plans for given groups of individuals in such a manner that, inherent in such laws, is a limitation or denial of free choice.

H. That a "line of demarcation" had to be found became certain, however, unless the medical profession were willing not only to abandon entirely its own traditional principles of free choice and free enterprise, but willing alike to ignore the lessons which all students of medical history

agree teach that free choice of physicians in a free enterprise system have been responsible to a large extent for advancing American medicine to its present world pre-eminence.

## **VI. Responsibility of the Board of Councilors**

A. The responsibility has therefore devolved upon this Board of Councilors to formulate—impartially, objectively and as clearly as possible—a statement interpreting the Principles of Ethics, establishing guides particularly applicable to our State of Colorado, and pointing out under what conditions the participation in medical care plans which closely approach the "line of demarcation" may be ethical or unethical.

B. This is not an easy task. The Principles of Medical Ethics endeavor to define the limits of ethical contract practice and endeavor to define the free choice of physician. But those Principles are not and never can be written in sufficient detail to anticipate every contingency that may arise in every state.

C. Our forebears realized this latter fact when they wrote into the By-Laws of the Colorado State Medical Society the provision quoted above, giving the Board of Councilors authority to interpret the Principles of Ethics for this Society. The officers and the Public Policy Committee of this Society also recognized this fact when they brought the current problem clearly before the House of Delegates in February, 1957, and memorialized the Board of Councilors to interpret these Principles and arrive at definitions of their phraseology which would guide members of the Society and help draw the indicated line of demarcation between medical care plans which provide free choice and those which do not. With this accomplished, Colorado physicians who may be "designated" or in any other manner participate in such plans can more readily evaluate their ethical standing and their positions as members of organized medicine.

## **VII. Definition of Terms**

*For clarity and brevity in later para-*



*graphs, certain words and phrases will be defined for the purposes of this Opinion as follows:*

A. "Physician" shall refer to and mean every legally qualified Doctor of Medicine practicing in the State of Colorado.

B. "Patient" shall refer to and mean any person who, at his own instance, or through a member of his family, his legal representative or voluntarily selected agent, seeks or obtains the professional services of a physician for diagnosis or treatment of any condition, or for health examination for that patient's personal health benefit.

C. "Third party" shall refer to and mean any person, firm, corporation or organization of any kind, other than the patient or his legal representative or a member of his family, who or which is responsible or holds himself or itself out as being responsible, in whole or in part, for the costs of the patient's medical or surgical care and who or which remunerates, in whole or in part, the patient's attending physician or otherwise intercedes or intervenes between the patient and his physician in connection with the rendering of medical or surgical care.

D. "Medical plan" or "plan" shall refer to and mean any system or arrangement, whether evidenced by formal contract or not, whereby medical or surgical care is rendered by physicians for remuneration, on a fee-for-service, salary or other basis, from any third party.

## VIII. The Principles of Medical Ethics

Chapter VII of the Principles of Medical Ethics of the American Medical Association contains the following two sections:

"Section 3.—Contract practice as applied to medicine means the practice of medicine under an agreement between a physician or group of physicians, as principals or agents, and a corporation, organization, political subdivision or individual, whereby partial or full medical services are provided for a group or class of individuals on the basis of a fee schedule, or for a salary or for a fixed rate per capita.

"Contract practice *per se* is not unethical. Contract practice is unethical if it permits

of features or conditions that are declared unethical in these Principles of Medical Ethics or if the contract or any of its provisions causes deterioration of the quality of the medical services rendered.

"Section 4.—Free choice of physician is defined as that degree of freedom in choosing a physician which can be exercised under usual conditions of employment between patients and physicians. The interjection of a third party who has a valid interest, or who intervenes between the physician and the patient does not *per se* cause a contract to be unethical. A third party has a valid interest when, by law or volition, the third party assumes legal responsibility and provides for the cost of medical care and indemnity for occupational disability."

## IX. Interpretations

A. The Board of Councilors believes that little need be said by way of interpretation of Section 3 of the Principles of Medical Ethics quoted above, except to point out that the development of third-party payment of medical costs does not always necessarily involve a "contract," "contract practice" in the usual understanding of that term, or even an "agreement" on the part of the participating physician. Instances have arisen wherein a physician designated as a participant in a medical plan was not aware of that fact until patients had been referred to him by the third party for care.

B. The Board of Councilors interprets the definition of free choice of physician as quoted in Section 4 of the Principles of Medical Ethics, quoted above, to mean that patients should be accorded freedom to choose any legally qualified and readily available physician who is able and willing to care for the patient.

C. The Board of Councilors further interprets the phrase "usual conditions of employment," above, to mean that whenever the patient needs medical care (such as specialty care for example) that is beyond the capabilities of his personal physician, the patient must be equally free to choose from among readily available physicians who practice an appropriate specialty.

D. The Board of Councilors recognizes that the mandates of law supersede in

authority any rule or regulation which the Colorado State Medical Society might establish. The Board also points out that observance of all laws of the communities where physicians live and practice is itself basic in the Principles of Medical Ethics (Chapter I, Section 11). The medical profession may on occasion be almost unanimous in disagreement with the principles of some law and may have opposed its enactment; but once enacted, even should a law appear to contradict some statement in the Principles of Medical Ethics, this Board will hold the law supreme.

E. Paragraph D, above, should make clear the fact that the principle of free choice of physician is not, as a matter of ethics and discipline in this Society, being violated by any physician who is employed by any department, division or subdivision of federal, state, or local government to serve patients whose medical care is a responsibility of that branch of government. The Colorado Medical Practice Act recognizes such employment.

F. Paragraph D, above, also makes clear, as especially recognized in the Principles of Ethics quoted under Section VIII of this Opinion, that the Principle is not being violated by a physician designated by an employer or by the employer's insurance carrier to care for employees for occupational diseases and injuries which are subject to the Workmen's Compensation statutes. The Workmen's Compensation statutes authorize such employment as a legal privilege of the employer.

G. The Board of Councilors calls attention also to its own terminology "for that patient's personal health benefit" in the Board's definition of the word "patient" under Section VII, Paragraph B, of this Opinion. This Board takes the position that a third party has a valid interest entitling that third party to select the physician in cases of health examinations (which in this instance could include the whole realm of diagnosis as well) which are performed for the primary benefit or for the legal protection of that third party. Readily understood examples would be examinations for the issuance of insurance policies, pre-

employment examinations, periodic health examinations of employees required by an employer, and examinations which may be required by any organization of which a person desires to become a member.

H. The Board of Councilors now calls attention to the fact that situations have long existed, and circumstances frequently arise, in which no party at interest in the employment of a physician by a patient can avoid the impracticability of a free choice. The prime example is geographic isolation of a small community where only one physician is available, or where no physician can be made available without some form of subsidy. Whether such subsidy, salary, guarantee, or other form of payment is provided by the community itself, by the management of an industry, by an interested labor union, or in any other legally acceptable manner does not necessarily affect the free choice principle. The Board therefore wishes to make it clear that in any case coming before this Board on the free choice principle, the Board will take cognizance of the geography, transportation facilities, availability of physicians, and any other relevant facts which affect the ability of patients to choose their physicians. Sober reflection will make all realize that even in a large metropolitan center, sudden emergencies may arise wherein prompt action for the best interests of the patient preclude free choice at that particular time.

I. The Board of Councilors has noted, in Paragraph H next above, that the method of payment of a physician (salary, percentage, subsidy, guarantee, fee-for-service, or other) does not of itself affect the ethical status of a medical plan so far as the principle of free choice is concerned. However, the method of payment may cause a medical plan to operate unethically if it be shown by evidence that the method violates the letter or spirit of Colorado statutes which forbid the practice of medicine by corporations or other organizations or persons who are not licensed to practice, or that the method of payment violates some other section of the Principles of Ethics. All concerned in this connection are admon-

ished to familiarize themselves with all sections of Chapter VII of the Principles, as well as Sections 3 and 4 quoted earlier.

J. The Board of Councilors also points out the application of these principles to physicians who render professional services under lawful arrangements with hospitals. While in a sense such physicians, particularly in the specialties of radiology, pathology and anesthesiology, have a relationship with the patient which does not spring from direct choice by the patient, this Board is of the opinion that the principle of free choice of physician is not necessarily violated. Free choice obtains if the patient has freely chosen his attending physician and has directed or permitted his attending physician to select for him the hospital or the specialist concerned. Any other consultant is in a similar status with respect to the application of these principles. The consultant need not be directly designated by the patient. Free choice obtains if the patient has expressly or impliedly given his freely chosen attending physician the responsibility of selecting a consultant.

K. A somewhat similar point should be made with regard to physicians who practice in groups or clinics, in view of the fact that on occasion incompletely informed persons have erroneously confused groups or clinics with "closed panel" practices. The practice of medicine in groups and clinics is expressly recognized in the Principles of Ethics, with the admonition that the ethical principles actuating and governing a group or clinic are exactly the same as those applicable to the individual. It is the opinion of this Board that while the patient may not exercise a direct choice of each individual in the group or clinic under whose professional care he comes, the principle of free choice is satisfied so long as the patient has unrestricted freedom of making his own selection of the group or clinic and the aggregate professional services which it affords.

#### **X. Examples of the grant or denial of Free Choice**

A. The Board of Councilors is aware of

the findings of committees of the Colorado State Medical Society which have interviewed and questioned many physicians, including the chief medical officers of several of the larger medical plans operating in this state. The Board has also, on its own motion, interviewed and questioned a broad sample of the Society's membership, in a study of methods used by some plans to evade without openly denying the principle of free choice of physician.

B. There are several such methods, some of them open and obvious, others far from obvious and almost hidden, but all equally repulsive to the freedom which this Society has declared to be a basic right of all patients. A discussion of some of those methods, and of some medical plan operations which have been brought into question but which in this Board's opinion do not violate the free choice principle, should help in guiding physicians away from unethical practices.

C. Where an employer, whether upon his own volition, through contract or agreement with a labor union, or by arrangement with still some other agency, makes employee participation in a medical plan a condition of employment, and where the third party thus established limits professional participation to a closed panel or list of designated physicians which is fewer than all the legally qualified ethical physicians of the community, free choice has been denied. It should again be reiterated here, that this would not apply if the medical plan encompasses no more than workmen's compensation practice and employer-required health examinations.

D. Where any third party, whose funds for maintenance of a medical plan have effectively been derived from the labor and productivity of the employees or former employees, limits professional participation to a closed panel or list of designated physicians fewer than all the legally qualified ethical physicians of the community, free choice has been denied. The same exemptions for workmen's compensation practice and health examinations required for lawful purposes of the third party would apply.

E. Either of the above examples amounts, in the opinion of the Board of Councilors, to an economic compulsion of the patient to accept the services of a physician who may not have been of the patient's own free choice.

F. The Board of Councilors is aware of the existence of medical plans in Colorado, financed by payroll deduction or by membership dues to employer or employee-sponsored associations formed for the purpose, in which participation by the employee has been testified to be purely voluntary. Where such a medical plan is so organized and operated that an employee may freely choose between joining or not joining the plan and, after joining, may freely withdraw at any time upon reasonable notice, the Board of Councilors holds that the free choice principle has been observed. This would be true even if the plan limits professional participation to a closed panel or designated list of physicians. Physicians participating in such a plan, however, should be on guard against undue suasion of prospective patients in view of the clear proscription against direct or indirect solicitation of patients found in Chapter I, Section 4, of the Principles of Ethics.

G. Similarly, any third party medical plan, regardless of relationship or lack of relationship to employment of the persons who may subscribe to, become members of, or otherwise choose to purchase prepaid medical care through the plan, does not violate the free choice principle if participation by the prospective patient is purely voluntary, even though professional participation may be limited to a closed panel or designated list of physicians. Here again, however, physicians who participate should guard against any action smacking of solicitation.

H. The immediately preceding two paragraphs present what the Board of Councilors sees as medical plans which accord patients a free choice of physician within the Board's interpretation of the Principles of Medical Ethics. However, this Board sees them also as plans whose operations need careful scrutiny from time to time, particularly by their own participating phy-

sicians, to avoid encroachment upon the line dividing the ethical from the unethical.

I. Just as it is impossible for the nationally-published Principles of Medical Ethics to anticipate every contingency in every state, so does the Board of Councilors find it impossible in any interpretation or group of interpretations to anticipate every facet of every Colorado medical plan which may now or in the future affect favorably or adversely the inherent right of the patient to choose his own physician. "Borderline" instances no doubt exist or will appear in the future, and when brought to light, they must be examined factually to determine their status.

## XI. Summary of Findings

A. The Board of Councilors takes cognizance of the policy of the Colorado State Medical Society as pronounced by the House of Delegates of the Society on February 21, 1957, quoted in Section III, Paragraph A, of this Opinion, and reiterates this Board's own findings of the same date referred to in Section IV of this Opinion.

B. After intensive further study, and with the application of the terminology as defined by this Board in Section VII of this Opinion, the Board of Councilors further finds as follows:

**The free choice of physician by the patient is, as this Board interprets the Principles of Medical Ethics of the American Medical Association, a fundamental right which may not be denied to any patient EXCEPT**

- (1) as required by law,
- (2) as dictated by circumstances over which no party to the employment of the physician has practical control, or
- (3) as required or permitted by a third-party interest the validity of which is recognized in this Opinion or is established by evidence presented to this Board.

C. The Board of Councilors further finds:

Any Colorado physician who knowingly and willingly participates in, or aids and abets the operations of, a medical plan which denies its beneficiaries the right of free choice of physician as defined and interpreted in this Opinion shall, upon conviction thereof by the appropriate medical tribunal, be found guilty of unethical and unprofessional conduct and subject to discipline by the Society.

## XII. Implementation of the Findings

A. The Board of Councilors is fully aware that the policy established by the House of Delegates and these findings of the Board of Councilors may place some members of this Society in the position of violating the Principles of Medical Ethics by continuing practices which they had carried out for some years and had in all sincerity believed to be proper. The Board is equally aware that some of the practices are currently being carried out under legally binding contracts. Further, the Board is aware that there are some medical plans in Colorado which do not involve contracts, but whose arrangements, though entirely verbal, have become so well established that a reasonable period of time must be allowed for readjustment of their operation to abide by the principle of free choice of physician.

B. The Board of Councilors will therefore allow a reasonable time for such adjustments to take place. The Board believes that such adjustments should be completed within one year from the effective date of

this Opinion, but hereby declares that it will give due consideration to special circumstances, including the existence of lawful contracts, which may require extensions in individual cases.

C. The Board of Councilors admonishes all members of The Colorado State Medical Society who are concerned to begin at once to take such steps as may be necessary to effect these adjustments.

D. This Opinion shall take effect and be in force upon the first day of May, 1957, and the Board of Councilors hereby directs the judicial bodies of all component societies of The Colorado State Medical Society to observe this Opinion and all Sections and Paragraphs thereof until further notice.

DONE IN MEETING APRIL 13, 1957,  
AT DENVER.

(signed)

HERMAN W. ROTH, M.D., Chairman.  
JOHN D. GILLASPIE, M.D., Vice Chm.  
HARRY C. BRYAN, M.D.  
SCOTT A. GALE, M.D.  
PAUL R. HILDEBRAND, M.D.  
ROGER G. HOWLETT, M.D.  
CHARLES L. MASON, M.D.  
OSGOODE S. PHILPOTT, M.D.  
HARVEY W. TUPPER, M.D.

Attest:  
(seal)

HARVEY T. SETHMAN,  
Secretary

*EDITOR'S NOTE: Pre-prints of the above article were ordered by the Colorado State Medical Society and were mailed late in April to every member of the Colorado Society, to officers of the American Medical Association, and to the Secretary of every state and territorial medical society. A few additional copies are still available on request to the Journal's office.*



## Effects of Hypocalcemia On the Central Nervous System\*

C. R. B. Blackburn, M.D.  
SYDNEY, AUSTRALIA

*Here is interesting insight into some of the mysteries of the central nervous system.*

TWENTY-TWO years ago Joseph Barcroft wrote "Features in the Architecture of Physiological Function" and in its first three chapters discussed Claude Bernard's statement that "The fixity of the internal environment is the condition of a full life." Barcroft pointed out how apt was this description when applied to man's intellectual ascendancy. He said that "the highest functions of the nervous system demand a quite special constancy in the composition of its intimate environment." This is especially apt in a consideration of the effects of hypocalcemia. While many of the typical effects of hypocalcemia are spectacular there can be no doubt that changes in intellectual function are common, subtle and often missed but easily reversed by treatment.

In a clinical sense hypocalcemia induces changes in structures of ectodermal origin, the skin, the nails, the hair, the lens, and the nervous system. Less obvious changes occur in other tissues, including the heart, but these seldom assume clinical importance. In this paper I wish to refer particularly to the alterations in function of the

central nervous system which we have seen and to investigations on the mechanisms of their productions by Dr. D. Kerr Grant and Dr. L. C. A. Watson.

There are many causes of chronic hypocalcemia with tetany but one of the commonest is still parathyroprivic, accidental removal of the parathyroid glands during thyroidectomy. Patients with steatorrhoea, renal diseases, and rarely, idiopathic hypoparathyroidism will all be seen in a large clinic. My remarks today will refer to hypoparathyroid hypocalcemia since most of our clinic patients have this etiology.

Of a series of twenty women with hypoparathyroid hypocalcemia, all at some time had clinical tetany with paresthesiae, cramps, or carpo-pedal spasms. Out of nineteen, seventeen had a positive Trousseau's sign when we saw them and ten out of eighteen patients examined with the slit lamp had definite cataract or early changes. Eleven out of twelve patients had typical electrocardiographic abnormality of a prolonged Q-T interval from 1.09 to 1.41. In the normal female, this should not exceed 1.09. These electrocardiographic changes reverted to normal after treatment. Electrocardiographic changes due to hyperpotassemia or hypopotassemia may be associated with prolonged Q-T interval but changes in the T wave and QRS complex should prevent confusion.

In nineteen out of nineteen patients there

\*Presented before the annual meeting of the Utah State Medical Association, Salt Lake City, in September, 1956. The author is Professor of Medicine, University of Sydney. From the Clinical Research Unit, Royal Prince Alfred Hospital, Sydney, which is supported in part by the National Health and Medical Research Council of Australia.

were symptoms or signs relating to the central nervous system.

The commonest alteration in central nervous system function is at the psychic level, quite in accord with Barcroft's essay referred to earlier. In fifteen of our twenty patients in whom adequate observations were made, there were definite psychic changes though their recognition would often have been impossible except in retrospect. The improvements in personality which occurred when the serum calcium had been maintained at normal levels for some weeks were often remarkable. We believe that these changes are common indeed but it is often impossible to deny or confirm their presence in patients seen on only two or three occasions. Often the changes are minor and, as pointed out by Oscar Sugar, may amount to no more than a slowing down which may be mistaken for the patients' normal status. One of our patients remarked after three weeks' treatment with calcium and Vitamin D began, "I have come back again" and referred to her return of alertness. Sugar, in his review, refers to psychoses, toxic delirium and confusion, delusions and hallucinations, mental retardation, dullness and depression, progressive personality changes with emotional instability and irritability, and drowsiness and loss of memory. Further to confuse the nature of these symptoms there may be hypothyroidism in the post-operative case.

In our series mild personality changes were the most common findings. Depression, loss of memory, disturbed sleep, and emotional imbalance were more usual than frank psychoses.

These symptoms may persist with little change for years and the patient remain mentally disturbed, depressed or dull. The symptoms in the older patient may appear to be evidence of a mild senile dementia. We have seen patients who, in the words of their relatives, had never been normal since their thyroidectomies ten to twelve years before, yet were quite restored by a few weeks of normocalcemia. These patients have little evidence of classical tetany unless specific tests are carried out.

Hysterical overbreathing with tetany is common after thyroidectomy but we have

seen marked personality changes occurring forty-eight hours after parathyroidectomy. Patients with post-thyroidectomy hysteria should have serum calcium levels determined because some will be found to have hypocalcemia.

The next most frequent central nervous system manifestations, in our experience, are epileptic seizures. These may occur soon after operation. One of our patients had her first fit four weeks after parathyroidectomy. There is nothing specific about these fits except that the patient often has carpopedal spasms early in the seizure. Nine of our twenty patients had fits at one time or another. These fits, together with mental changes, have been responsible for the institutional care of patients with hypocalcemia. One of our patients had fits and mental retardation of sufficient degree to necessitate her being cared for as an invalid at home for many years. If hypocalcemia is corrected the fits disappear permanently unless the patient has coincidental "idiopathic" epilepsy which I will discuss shortly. Of course, the presence of cataracts, or carpopedal spasms, and of aberrant electroencephalographic findings suggests that the patient does not have "idiopathic" or focal epilepsy. In our experience fits are commoner than appears from a survey of other reported series.

Papilledema is uncommon in hypocalcemia. We found papilledema in two out of nineteen patients. Three patients out of sixteen had raised intracranial tension. When papilledema and raised cerebrospinal fluid pressure are combined with epileptic fits and mental changes, the patient will often be subjected to air studies and burr holes. One of the patients referred to us was tentatively diagnosed as having a cerebral tumor because of disordered intellect, papilledema, and persistently raised cerebrospinal fluid pressure. The diagnosis was changed to cerebral thrombophlebitis when cerebral edema was found through a burr hole. She finally settled down on treatment which corrected her hypocalcemia. Papilledema requires careful investigation since a patient with hypocalcemia could develop a space occupying intracranial lesion.

Persistent coma, that is coma which is not

merely post-epileptic, is rare in hypocalcemia. We have seen it once. A woman of 64 years had a large retrosternal thyroid removed and developed post-operative tetany. Two months later she had an epileptic fit and was readmitted with tetany which was continuous. Lumbar puncture revealed a normal pressure. She was transferred to our unit with a positive Trousseau's sign, a serum calcium of 5.3 mg. per cent, and incontinence. She was given no treatment other than intravenous calcium gluconate in 5 per cent dextrose and water. There was complete return of consciousness in twelve hours and there were no residual neurological signs. As incidental signs she had a dislocated mandible and compression fractures of her fourth and ninth thoracic vertebrae, the latter being based on post-menopausal osteoporosis. We did not doubt that her fractures and dislocation were occasioned by her fits.

Other reported changes in central nervous system functions include extrapyramidal signs and mental deficiency which were not clearly recognized in our series. One patient was clearly defective mentally but she had a background of mental instability and had had burr holes in her skull. Her mental status has not appreciably changed in three years of normocalcemia.

Of relevant investigations directed to the central nervous system, the radiological demonstration of symmetrical calcification of the basal ganglia, and of vessels of the cortex, has received particular attention and is remembered because the findings are so spectacular. They seem to have no importance at all in the pathogenesis of symptoms and will receive little attention here. We were able to demonstrate calcification in the basal ganglia in one patient with idiopathic hypoparathyroidism but she had no signs relating to this area, no fits, and no other major neurological phenomena. Unexpected symmetrical cerebral calcification should direct attention to possible hypocalcemia.

The electroencephalogram is commonly abnormal. We found the type of changes described by Gotta and Odoriz in half of our patients; that is a dysrhythmic pattern with increased fast activity, some 6-7 c.p.s. slow

waves, decreased alpha rhythm and an excessive sensitivity to hyperventilation. While the electroencephalographic changes were present in many of our patients with clear cut mental changes they did not disappear contemporaneously with the clearing of the mental changes. The electroencephalographic changes persist for weeks in some patients and no change can be induced by the casual injection of calcium gluconate.

Dr. D. Kerr Grant studied the relationship of fits in tetany to idiopathic epilepsy and used the electroencephalogram with photic and metrazol stimulation as an investigative tool. He came to the conclusion that fits were not usually evidence of epilepsy on the following grounds:

1. Fits cease and do not recur if the serum calcium is maintained at normal levels though no anti-convulsants are given and anti-convulsants alone do not control the fits.

2. Electroencephalographic abnormalities are reversed and the decreased photic and metrazol thresholds are restored to normal if a persistent normal serum calcium is maintained. Furthermore, myoclinic thresholds are in the normal range after treatment.

3. Of eight children of two mothers with hypocalcemia and fits none had electroencephalographic patterns suggesting idiopathic epilepsy.

Furthermore we are following one patient who had a history of epilepsy prior to parathyroidectomy and who has continued to have fits unless given anti-convulsant therapy. Her electroencephalogram, which is not that of hypocalcemia but that of epilepsy, has not changed as the result of persisting normocalcemia.

We believe that fits in tetany are not evidence of epilepsy in the average patient but admit that a decreased convulsion threshold, whether it be due to hypocalcemia, metrazol or something else, will more easily induce fits in the epileptic patient than in the normal.

Dr. Kerr Grant was not able to establish any relationship between the presence of fits and the presence of papilledema and

raised cerebro-spinal fluid pressure in his patients. Recently, Dr. L. C. A. Watson studied the effects of hypocalcemia on the central nervous system of rabbits. He was able to induce tetany, epileptic fits, cerebral edema and a raised cerebro-spinal fluid pressure in his animals. Chronic hypocalcemia is induced by disodium ethylenediamine tetra-acetate injections, pressure of the cerebrospinal fluid is repeatedly measured by a bubble manometer connected to a needle inserted into the cisterna magna, and serial samples of uncontaminated cerebrospinal fluid have been collected and analyzed from groups of rabbits. After the animals have been sacrificed, appropriate studies are made of their brains.

Rabbits with chronic hypocalcemia can be maintained in reasonable condition but, of course, have tetany. Some animals develop epileptic fits but these are not necessarily those with raised intracranial pressure. Other rabbits, few in number, develop a raised cerebro-spinal fluid pressure and some change in cerebro-spinal fluid osmotic pressure. Dr. Watson has therefore proposed the following tentative hypothesis: that the epileptic fits, and possibly the personality changes, and the electroencephalographic abnormalities are reflections of increased excitability of the cortical cells as a direct result of hypocalcemia associated with mild cerebral edema, and that the papilledema and raised cerebrospinal fluid pressure are the results of changes in the cerebral vasculature or alterations in osmotic pressure relationships between the blood and the cerebrospinal fluid.

It is of importance that the human syndrome has been reproduced in the rabbit by hypocalcemia without hypoparathyroidism (indeed we would expect some degree of hyperparathyroidism in these rabbits) because it demonstrates that it is the hypocalcemia rather than some other unrecognized effect of hypoparathyroidism that induced the central nervous system changes.

In regard to management the parathyroid hormone virtually is of no value—the symptoms and signs are caused by hypocalcemia, which cannot easily be relieved by parathyroid hormone for any significant period.

Acute symptoms indicate intravenous cal-

cium gluconate; long-term management means a permanent regimen of a low calcium-low phosphorus diet, a calcium salt by mouth, and vitamin D or a homologue for life. We follow Fuller Albright's recommendations but have the patient boil up the calcium as recommended by Haines. To an internist there are few more satisfactory patients to have referred than a disturbed tetanic—you guarantee results and get them! One word of warning, the patient's responsiveness to vitamin D can vary. An increase in sensitivity can result in hypercalcemia with marked symptoms as happened in the case of a 55-year-old nurse who had tetany for a year. She had been maintained on a dosage of 150,000 units of vitamin D for six months with many normal serum calcium levels and yet, suddenly, developed a serum calcium of 22 mg. per cent with severe symptoms. She has been maintained subsequently on 20,000 units orally.

We do not rely on the Sulkowitch test on the urine for the control of treatment but have the serum calcium level determined at regular intervals which vary from one week to two months depending on the stability of the patient's tetany and his ability to carry out treatment.

I must emphasize again the importance of recognizing that fits are common in hypocalcemia, but rarely indicate idiopathic epilepsy, and that psychic changes are usual. Central nervous system symptoms can develop within two days of parathyroidectomy but may persist indefinitely. The electroencephalographic tracing is usually dysrhythmic and the changes persist for weeks in spite of normocalcemia. The combination of fits, papilledema, raised cerebrospinal fluid pressure, mental changes and an abnormal electroencephalogram are suggestive of cerebral tumor or cerebral thrombophlebitis but similar changes due to hypocalcemia will be reversed by treatment directed to restoring normocalcemia.

The changes in personality, we believe, are so common as to suggest their invariable presence. In terms of the concept of the need for a fixed internal environment, they are just what would be expected.

(Turn to Page 476 for references.)

# Pancreatico-Duodenectomy in Incomplete Bowel Rotation, *Anatomical Peculiarities*

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DENVER  
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SOME of the technical problems associated with the radical pancreatico-duodenectomy as performed by Whipple<sup>1</sup> in 1938 and as developed by Cattel<sup>2</sup>, Waugh<sup>3</sup>, and others, occur because of the normal embryologic rotation of the bowel around the superior mesenteric vessels. It is our purpose to present here a summary of the anatomical peculiarities encountered during a pancreatico-duodenectomy in a patient who had an incomplete rotation of the bowel. The procedure was undertaken because of carcinoma of the head of the pancreas.

The disposition of the intestinal tract at the time of opening the abdomen is illustrated in Fig. 1. The cholecystoduodenostomy had been performed to relieve the obstructive jaundice about one month prior to the pancreatico-duodenectomy. It should be noted in Fig. 1 that the duodenum and small bowel are all in the right side of the abdomen, while the colon, including the cecum, is in the left side of the abdomen. The roentgenologic demonstration of this anomalous situation is illustrated in pre-operative upper gastrointestinal x-rays, Fig. 2. This roentgenogram shows the stomach to be in the left upper quadrant and the small bowel in the right lower quadrant.

The anatomical arrangement of the gastrointestinal tract in this patient provided distinct technical advantages during the course of the resection. There was no transverse mesocolon attached to the head of the pancreas. The duodenum was a completely intraperitoneal structure. The vascular supply to the small bowel all came off the right side of the superior mesenteric artery. The anterior and posterior branches

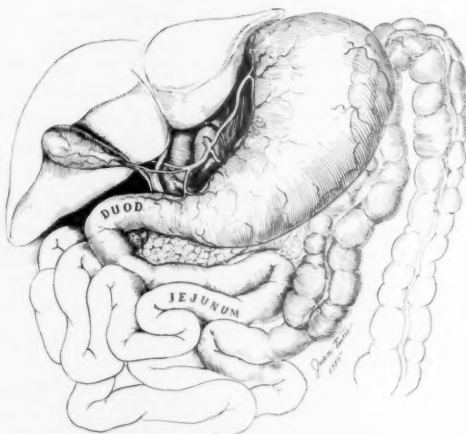


Fig. 1. Anatomical situation at time of laparotomy.

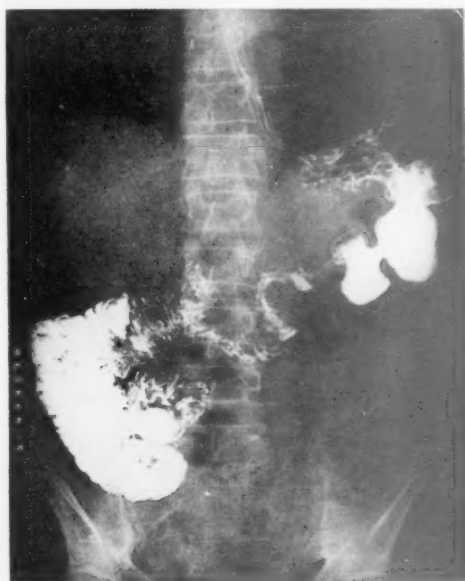


Fig. 2. Radiologic evidence of incomplete rotation.



of the inferior pancreatico-duodenal artery came off the superior mesenteric artery on the right side just above the first branch to the jejunum. The superior pancreatico-duodenal and the supraduodenal vessels were in their usual locations.

After separation of the portal vein from the posterior surface of the pancreas the resection proceeded from below upward ligating and dividing in order the first jejunal branch of the superior mesenteric artery, the inferior and superior pancreatico-duodenal arteries, the gastroduodenal branch of the hepatic artery and the right gastric artery. These vascular ligations permitted a division of the jejunum, body of the pancreas, stomach above the antrum and common duct above the entrance of the cystic duct. It was then possible to deliver the upper jejunum, duodenum, head and neck of the pancreas, distal half of the stomach, lower end of the common duct, the gallbladder and cystic duct (after ligation of the cystic artery) enbloc. The usual difficulties encountered in freeing the jejunum and its vascular tree from beneath the superior mesenteric vessels were not present.

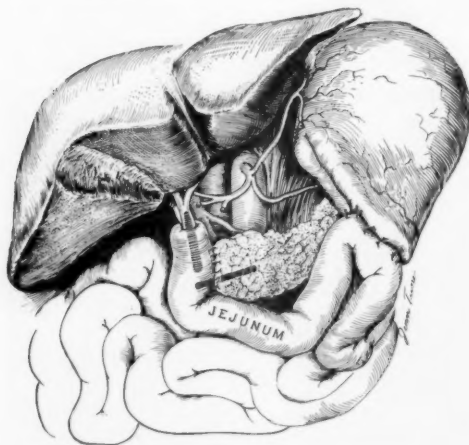


Fig. 3. Gastrointestinal reanastomoses.

The re-anastomoses were uncomplicated procedures and are graphically shown in Fig. 3. A polyethylene tube was used as a stent for the pancreatic duct and a rubber tube was similarly used in the common bile duct during the anastomoses. Postoperative scout films showed the position of these



Fig. 4. Radiologic picture of stents in pancreatic duct and common duct.

tubes as illustrated in Fig. 4. The polyethylene tube disappeared in about two and one-half months, leaving the common duct tube as shown in Fig. 5. By the end of three months the rubber tube had left its position,



Fig. 5. Radiologic picture showing absence of pancreatic duct stent.

was regurgitated into the stomach and vomited.

The patient lived comfortably for approximately one year but died of extensive metastases.

No attempt is made to analyze the problem of carcinoma of the head of the pancreas with obstructive jaundice or the variations in the classical surgical technics in which normal anatomical relationships ex-

ist. Our main purpose is to report this unusual situation and experience.

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## Pre-Eclampsia and Eclampsia

Milo C. Moody, M.D.

SPANISH FORK, UTAH

*The cause, prevention and cure of these dangerous complications of pregnancy are discussed in a clear and scientific style.*

THE purpose of this paper is first, to clarify and simplify concepts of etiology and treatment of pre-eclampsia and eclampsia; second, to evaluate the safety and effectiveness of Mercuhydrin as an aid in treatment; and third, to add to the accumulating evidence that eclampsia is preventable.

Pre-eclampsia and eclampsia are stages of one disease to which the term eclamptogenic toxemia has been applied. Pre-eclampsia is called toxemia of the third trimester of pregnancy but it may begin earlier. It may be mild or severe. The first symptom is weight gain in excess of a pound a week. Excessive gain precedes other symptoms by a number of weeks. Rise in blood pressure, albumin in the urine, and swelling of hands and feet follow. If the disease becomes severe, there is continued rise in blood pressure, albuminuria increases, casts and blood may appear in the urine, and the patient complains of blurring of vision, dizziness, headache and epigastric pain. If these symptoms are not controlled, the convulsions of eclampsia occur.

There is no characteristic pathologic lesion found in patients dying of eclampsia that can be said to be of etiologic significance.

Stander reports severe pre-eclampsia as occurring 1:73 cases, eclampsia as occurring 1:253.7 cases entering lying-in hospitals, and 1:1816.6 deliveries in private practice. This is an over-all incidence of eclampsia of 1:867. Stander also reports that recurrence in patients who have had eclampsia is 1:51. Hester, Smith and Wilson reported 7,205 deliveries with seventy-six cases of eclampsia or 1:95. Seventeen of the seventy-six cases had regular prenatal care, an incidence of 1:424. In a recent article, Falls reports the West Suburban Hospital at Oak Park, Illinois, as having 33,663 deliveries from 1944-1954, mostly white middle or upper income group. In this group, 1:40 cases had pre-eclampsia and 1:748 cases had eclampsia (forty-five eclamptics with one death).

Falls reports Research and Educational Hospital, University of Illinois, with 10,000 deliveries 1934-44, all free patients, pre-eclampsia incidence: 1:9.5 cases and eclampsia 1:133 (seventy-five eclamptics, three deaths). 1944-54 this same institution had about the same incidence of toxemias but death in eclamptics was reduced to one case.

This article is based on an incidence of one severe pre-eclamptic and one eclamptic,

the only cases requiring hospitalization, in 2,300 deliveries in private practice. Frequently cases have shown excessive gain, and swelling of hands and feet, nearly all completely reversible. A small number have developed edema, albuminuria, and rising blood pressure. Treated early, the majority of these cases have returned to normal.

Pre-eclampsia is known to occur more frequently in primiparas, multiple pregnancies (twins, etc.), polyhydramnios, and hydatidiform mole. It occurs more frequently in patients in the lower income group and in negroes. It is more frequent in patients predisposed to hypertension and in diabetics.

There is hardly a disease that has had more theories of etiology than pre-eclampsia and eclampsia. The accumulating facts are fast dispelling the mysteries of etiology. Nineteen years ago the author considered pre-eclampsia and eclampsia a water-balance problem and has treated patients by this concept effectively since that time. Etiological concepts and effective methods of treatment depend on understanding in a general way the normal fluid and electrolyte balance and the changes in balance during pregnancy and in eclamptogenic toxemia.

#### Fluid Balance Problems

The body fluids are contained in three spaces, vascular (plasma), extravascular (interstitial), and cellular. The plasma and interstitial fluids are similar in composition except for the greater amount of protein in the plasma. The cellular composition is as complex and varied as the tissues of which they form a part. It represents many separate compartments each with its individual osmotic and tissue tension. Normally these fluids constitute about 60 per cent of the body weight and are distributed as follows:

**CHART 1**  
Normal Fluid Distribution in 70 kg. Woman

Compartment	Percentage of Total Body Weight	Amount
Vascular (Plasma)	4-5%	3.5 liters
Extravascular (Interstitial)	16-19%	10.5 liters
Cellular	35-40%	28 liters

These body fluids are in electrical balance between positively charged electrolytes, cations (+), and negatively charged electrolytes, anions (-). Principal body cations and anions and their distribution in the body compartments are shown in Chart 2. It should be noted that there is a high concentration of sodium cations and chloride anions in the plasma and interstitial fluids and a high concentration of potassium cations in the intracellular fluid; also, that proteins are high in the plasma and intracellular spaces and negligible in interstitial fluid.

**CHART 2**  
Average Normal Values of Fluid Electrolyte Concentration Expressed in Milliequivalents per Liter\*

Ion	Serum	Interstitial	Intracellular
Sodium +	143	145	7
Potassium +	4.3	4.4	155
Calcium +	5.0	2.8	....
Magnesium +	3.4	2.4	20
Chloride -	104	118	3
Bicarbonate -	27	30.5	10
Phosphate -	2.3	....	....
Sulfate -	0.6	....	....
Protein -	16	....	55

(Blood Cells)

\*Modified from Edema Water and Electrolyte Imbalance; Research in the Service of Medicine, Volume 43.

Unequal concentration of electrolytes in the blood and interstitial spaces creates a pressure called osmotic pressure with movement of fluid toward the side of greater concentration. All electrolytes, except protein, are diffusible and move quickly to effect a balance.

The large protein anions, which are high in the plasma and body cells, are non-diffusible, and thereby create a constant osmotic pressure. Osmotic pressure pulls electrolytes and fluids into the plasma and tissues from the interstitial spaces. Osmotic pressure is counterbalanced by blood pressure and tissue tension which acts to force fluid and electrolytes into the interstitial spaces. West and Todd state that the albumin fraction of the plasma is chiefly responsible for most of the effective osmotic pressure; also, that because the protein binds ions which thereby become non-diffusible, additional osmotic pressure is created due to unequal concentration of ions

in the plasma and in the interstitial spaces (Donnan effect). They state that one gram of albumin holds 18 c.c. of fluid in the plasma. Fulton states that "Osmotic pressure is rather constant, varying from 22-30 mm. mercury." The blood pressure is greater than the osmotic pressure on the arterial end of the capillaries and less than the osmotic pressure on the venous end of the capillaries, thus creating the differential pressures needed for circulatory exchanges in capillary beds.

The acid-base balance of the blood is maintained within a narrow pH range by the (1) buffer systems—bicarbonate, phosphate and proteins, (2) excretion of carbon dioxide by the lung, (3) selective excretions at the kidney, and (4) to a minor extent, excretion of the intestinal mucosa.

Body fluid balance is maintained chiefly by ingestion of foods and fluids and elimination through the bowels and kidneys. The kidney acts to maintain both acid-base (electrolyte) and fluid balance of the blood. Normally this balance is regulated by hormonal influences and by blood volume and blood pressure changes which determine the content and volume of urine. When abnormalities of balance occur, intake and output can be adjusted to correct the volume, distribution, and content of the three compartments. Since the plasma has only one-twelfth of the total body fluids, it may take days of proper treatment to reverse large abnormalities in interstitial and intracellular fluids.

Plasma measurements of volume and electrolyte content may not properly reflect the volume and electrolyte content of the interstitial and intracellular fluids. This is particularly true in eclamptogenic toxemia in which a relatively reduced plasma volume is associated with greatly expanded interstitial volume. Intracellular volume is expanded to a variable degree. This creates confusion in water balance concepts of eclamptogenic toxemia.

In spite of a high hematocrit reading suggesting plasma dehydration in eclamptogenic toxemia, it is usually apparent that the tissue spaces and tissues are edematous. The treatment is dehydration which draws fluid from the interstitial spaces and tissues

into the plasma for excretion. Dehydration under these circumstances brings the relative volumes of the plasma, interstitial fluids and cellular fluids into balance.

Best and Taylor state: "In pregnancy, plasma water as well as interstitial fluid is increased; the latter by as much as three liters. There is an associated retention of sodium." They state further: "The increase of plasma volume in pregnancy combined with the lowered protein concentration of the plasma, which results from the dilution and consequent lowering of the plasma oncotic (osmotic) pressure, is responsible in part at least for the edema of the lower limbs which commonly occurs in the pregnant state."

Reed reports studies from the Boston Lying-In Hospital, showing that in normal pregnancy there is a hydration of the extravascular spaces reaching a peak sixty days before labor. This peak remains until after delivery and is then slow to return to normal level. These studies also showed that plasma volume normally shows a volume increase of 49 per cent at forty days before labor and that this decreases to 25 per cent at the onset of labor.

Reed states: "These changes which take place in the extracellular fluid compartments (vascular and extravascular) during the latter part of the third trimester of normal pregnancy are exaggerated in the patient who develops eclamptogenic toxemia." "Observations indicate that in eclamptogenic toxemia there is a marked increase in the extravascular compartments with a relative decrease in the plasma volume. 'This hemo-concentration is reflected by a rise in the peripheral venous hematocrit.' In addition there was an actual decrease in the total amount of circulating plasma protein."

That these abnormalities are of etiologic significance in eclamptogenic toxemias is supported by clinical observations. Excessive fluid retention is indicated by excessive weight gain (the first symptom), by tissue swelling or thickening of the skin, and by outright edema observed in these cases. It is further supported by the fact that effective preventive treatment is basically a low sodium, liberal protein diet

with other measures to reduce or prevent interstitial and intracellular edema.

Since interstitial and intracellular dehydration can be accomplished only by treatment through the plasma, and since sodium retention is a characteristic of toxemia of pregnancy, as it is in heart disease with congestive failure, methods of dehydration should be the same as those found in congestive failure except that in heart disease digitalis products are used to treat circulatory failure and, in eclamptogenic toxemia, proteins are used to treat plasma protein deficiency. Clinically low sodium diets, ammonium chloride by mouth and, when needed, mercurial diuresis, is as effective in reducing edema of pre-eclampsia as it is in edema of heart disease.

Mudge states: "Among the many biological membranes that are concerned with transport of electrolytes, the tubular epithelium of the mammalian kidney is of unusual physiologic importance. Its transport mechanisms are so delicately balanced that extremely small deviations from normal function result in relatively enormous distortions in volume and composition of body fluids." With this statement and the fact of the normal expansion of plasma and interstitial fluid of pregnancy in mind, the known factors are sufficient to explain initial causes of pre-eclampsia. The incidence of eclamptogenic toxemia suggests three factors which act to initiate excessive physiologic hydration of the extravascular compartment. First, the rapidly growing fetus and placenta, especially with twins and polyhydramnios, and excessive weight gain. Second, pregnancy increases intra-abdominal pressure and tends to disturb kidney circulation by compression. Third, low intake of proteins together with increased protein needs act to initiate this imbalance by further reducing plasma proteins (which are already relatively reduced by physiologic expansion of the vascular compartment).

Fear, anxiety and tension states may produce or accentuate hypertension and thus are contributory factors. High salt or soda intake in pregnancy can cause hydration of the tissues and edema (sodium retention). Circulatory factors such as hyper-

tension, arteriosclerosis (diabetes), and heart disease; excretory factors such as specific kidney infection, antidiuretic hormone and other hormonal disturbances; load factors such as acute infections and abnormalities of the placenta and deficiency states may act to initiate the specific water and electrolyte imbalance of pre-eclampsia. These factors show wide variation in individual cases.

Toxemia may occur without clinical evidence of edema, but the majority show signs of intracellular hydration. In the kidney, affected by increased intra-abdominal pressure, increased load, and interstitial hydration, intracellular edema and electrolyte imbalance occur, causing disturbance of function, albuminuria and rising blood pressure. Loss of albumin and rising blood pressure tend to increase these defects. Thus a vicious cycle is created. Hypertension, albuminuria and vascular spasm come as a result of the primary disturbance. When these occur, they increase the abnormality and thereby become logical objects of treatment. Hypertension seems to progress with evidence of kidney damage and is said to compensate for decreased kidney function by increasing filtration pressures. Hypertension is associated with vasospasm and both may be compensatory mechanisms.

Symptoms of nervous irritability and brain dysfunction associated with severe pre-eclampsia and eclampsia are best explained on the basis of intracellular edema, hypertension, vasospasm and alkalosis. These factors and pregnancy per se are all known to increase the convulsive tendency in susceptible individuals. Acidosis does not occur until after convulsions, and is due to retention of fixed acids.

This presentation does not explain the etiologic factors in all cases of eclamptogenic toxemia. The writer believes that by maintaining the physiology of pregnancy well within the normal limits by preventing excessive hydration, protein deficiency and sodium retention and by attacking other initiating factors which are evident in each case, obscure contributing factors will be rendered ineffective in producing eclamptogenic toxemia. This is a practical and simplified clinical approach upon which effec-



tive prevention and treatment of eclamptogenic toxemia can be based.

#### **Treatment of Pre-Eclampsia**

A. Preventive: Good prenatal-care principles have been known for years and are generally effectively used to prevent many cases of pre-eclampsia and all but the rare case of eclampsia. These principles may be summarized as follows:

1. Visits: Regular visits every four weeks for the first five months, every three weeks from five to seven months, and every two weeks after the seventh month.

2. Diet: Balanced, with liberal or high proteins. Supplementary vitamins and iron usually routine. One quart of milk daily or supplementary calcium in the diet.

3. Weight control: Within fairly rigid limits—fifteen to twenty-five pounds (more for underweight and less for overweight). In those showing a gain in excess of one pound per week after the fifth month a high protein, low calorie diet with salt restriction usually suffices. Failure to gain adequately after the fifth month may be as significant as excessive gain as an indication of beginning toxemia and should cause the physician to inquire into and correct deficiencies in the diet.

4. Education: An attempt is made to discover and eliminate causes of fear and anxiety. An effort to build the patient's morale and confidence is made by appropriate literature and by orally extolling the virtues and minimizing the dangers of pregnancy. Written prenatal care instructions and Spock's Baby and Child Care are given as routine.

5. Exercise: Mile-a-day walking is stressed for its effect in increasing circulation and decreasing tension. Prenatal exercises and relaxing exercises are given as outlined by Grantly Dick Read.

B. Active Treatment: When preventive treatment fails or patients are first seen in a stage of pre-eclampsia, strict application of measures to dehydrate the patient in conjunction with preventive measures will reverse the abnormality in a surprising number of cases.

1. Patients should be kept ambulatory as long as possible since both kidney and brain

are more dependent in the recumbent position.

2. Water is allowed as desired, so that thirst will act as a guard against excessive dehydration.

3. A printed low-sodium diet which is high in protein and usually low in calories is given. A salt substitute may be of value.

4. Three to eight grams of ammonium chloride are given daily. The 7½-gr. enteric-coated tablets are better tolerated. A few patients will pass these pills unabsorbed so that uncoated tablets or a dilute solution must be used. There is no danger in using this dosage for weeks or months if needed, since body mechanisms, the buffers, lung CO<sub>2</sub> exchange and kidney mechanisms are adapted by physiological need to resist acid pH changes.

5. The above measures will be adequate in controlling excessive hydration in the great majority of patients. In the patient who fails to respond to these measures, Mercuhydrin\* in doses of 1 c.c. intramuscular daily for several days, then 1 or 2 c.c. intramuscular two or three times weekly is safe and will be found effective. Danger of sodium depletion with good kidney function is extremely small. Diuretic action of Mercuhydrin is enhanced by preliminary use of ammonium chloride.

Dehydration in advancing toxemia is the most effective element in the control and reversal of symptoms. In severe pre-eclampsia, diuresis is urgent. Symptoms of excessive interstitial hydration may not be clinically apparent if edema is minimal. Mercurial diuresis will be found effective in reducing albumin, casts and blood in the urine and in reducing blood pressure. Agents producing dehydration increase plasma acidity. Dehydration and increased acidity reduce the convulsive tendency. Oral

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\*Mercuhydrin was the first of the less toxic intramuscular mercurial diuretics. It contains 39 mgm. of mercury in organic combination and 48 mgm. of Theophylline. This drug has been used very extensively for many years. When used with due regard for its potential dangers, studies have repeatedly proved it to be effective and safe. The literature indicates that the low sodium syndrome does not occur except with prolonged use with rigid low sodium diets (and then only rarely except in chronic nephritis).

diuretics Neohydrin and Diamox may be of value in some cases.

6. In cases with rising blood pressure and in pregnant hypertensive patients, hypotensives should be used. Hypotensives may be used singly or by addition rather than by substitution and should be used in order of their safety. Low sodium diet and phenobarbital gr.  $\frac{1}{2}$  t.i.d. is started. If this is ineffective, Rauwolfia Serpentina 50-100 mgm. or Reserpine .25 mgm. q.i.d. may be added. If necessary, protoveratrine .2 mgm. q.i.d. by mouth may be added to previous measures and increased to tolerance for effective control.

Combined oral and intravenous use of protoveratrine has been found effective in reducing hypertension, edema and albuminuria of pre-eclampsia and has had a favorable effect on eclampsia. Its beneficial effect has been attributed to its action in decreasing peripheral resistance (vasospasm) by Krupp, Farris, Pierce and Jacobs. These authors also report that because of an antagonistic action, Apresoline should not be used in protoveratrine-controlled pre-eclampsia patients. They consider the protoveratrine treatment a valuable addition to therapy in hypertensive toxemias. If intravenous hypotensive agents such as protoveratrine, hydralazine, or hexamethonium are needed to control toxemia, the patient should be hospitalized.

Hydralazine (Apresoline), a central-acting hypotensive, also has been described as being a valuable adjunct in treatment of hypertensive toxemias. It may be combined effectively with hexamethonium. Hexamethonium, a ganglionic blocking agent, may also be used alone. Studies by Hughes and Moore indicate that hexamethonium diminishes renal clearance and in addition causes ileus and bladder distention in the fetus. These authors conclude: "The blocking agents should be reserved for resistant cases and then be used only under careful observation."

#### **Treatment of Eclampsia**

As stated previously, eclampsia can be prevented. Alert prenatal care, educating the patients to obtain prenatal care, and improvement of economic conditions are the needs for total prevention. Based on the

etiologic concepts presented, the primary treatment of eclampsia is adequate dehydration by diuresis. A moderate intake of I.V. fluids, 5 per cent glucose in distilled water, 2,000 c.c. daily is rational. Sedation must be sufficient to control irritability and convulsions. Demerol, Amytal, morphine, phenobarbital, and I.V. magnesium sulphate are the most useful sedatives. The treatment of hypertension by intravenous medication as outlined under pre-eclampsia is detailed in the literature.

Diuresis can be effectively obtained with Mercurhydrin, 1 or 2 c.c. doses, repeated daily or every other day. Dehydration decreases irritability and the convulsive tendency, prevents pulmonary edema, increases kidney function by decreasing intracellular edema, and reduces blood pressure, urinary albumin, and casts and blood in the urine. Even with kidney involvement, the cautious use of a mercurial diuretic for a short period should not be dangerous. It is intracellular edema which damages the kidney, not the diuretic.

The severe pre-eclamptic and eclamptic patient who fails to improve with treatment in twenty-four to forty-eight hours should be delivered by the safest method. The literature indicates that by careful management of the eclamptic, particularly with regards to timely and appropriate methods of delivery, the death rate in eclampsia can be made negligible.

One case of severe pre-eclampsia and two cases of eclampsia are detailed showing the effectiveness of Mercurhydrin in obtaining desired diuresis and dehydration.

#### **CASE HISTORIES**

Case 1: B. G., aged 31, para I, gravida III, one miscarriage. History convulsive seizures with first pregnancy (non-eclamptic). Taking Dilantin Sodium 100 mg. t.i.d. for prevention. Stopped medicine, had recurrence of convulsions second pregnancy. Has taken Dilantin regularly since without recurrence.

This pregnancy: Beginning weight 120 lbs., B.P. 118/68, urine normal. Routine prenatal care instructions given. She came for regular checks; a slight rise in B.P. noted at three months; at four months, B.P. 158/102, weight 124, urine normal. Treatment: low sodium diet, phenobarbital gr. ss t.i.d. Patient seen every ten days. She became progressively worse. At six months weight was 131 lbs., B.P. 170/108, skin

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ROCKY MOUNTAIN  
*M*EDICAL CONFERENCE

Jackson Lake Lodge

Moran, Wyoming

JUNE 15 THRU 19, 1957





Top: A view of the famous Jackson Hole valley of Wyoming.

Bottom: Depicted is a part of the main lobby and lounge at Jackson Lake Lodge.



## ROCKY MOUNTAIN MEDICAL CONFERENCE

### What It Is . . . What It Does

Many current medical organizations call themselves "conferences," but here in the Rocky Mountain region we have our Rocky Mountain Medical Conference. It is a biennial conference, a self-sustaining joint enterprise of the Colorado State Medical Society, Montana Medical Association, New Mexico Medical Society, Utah State Medical Association, and Wyoming State Medical Society.

The idea for this Conference was first suggested in 1935 by Dr. George P. Lingenfelter, Colorado's fraternal delegate to New Mexico, Utah and Wyoming. These societies agreed to undertake such a Conference and the first meeting was held in 1947. Colorado acted as host for this meeting, which was held in Denver. Permanent policies for the future were fixed at this meeting and these policies have been adhered to ever since. Montana joined the Conference at the time of the 1939 meeting in Salt Lake City.

Negatively the Conference is pledged to elect *no* officers, indulge in *no* medical politics, adopt *no* resolutions relating to policies of organized medicine, undertake *no* activities that would aggrandize any individual state or locality, hear *no* scientific speakers from within its participating states. Its positive purpose is to meet every two years, solely to bring Rocky Mountain physicians together to discuss common problems and to hear outstanding speakers of national stature from outside the Rocky Mountain region. Its meeting place is rotated among the participating states.

Management of the Conference is vested in a Continuing Committee. Each participating State Medical Society has organized such a committee of five of its members. These, combined, form the Continuing Committee of the Conference which meets annually to plan future programs and manage the affairs of the Conference. The Chairman of the host state's Conference Committee is Chairman of the Conference to be held in that state. He selects a Secre-

tary-Treasurer for that particular meeting and with the help of the Continuing Committee also selects the several subcommittees needed to plan the meeting for which his state is host.

Each succeeding Conference has established an enviable record for the quality of its program, its fraternalism, and its precise conduct.

Now it's Wyoming's turn again in the rotation. "Jackson Hole," the great wide mountain valley surrounded by the Teton Mountains on the west, the Wind River Range on the east and southeast, and the hills and mountains of Yellowstone National Park on the north, is the general site. The town of Jackson, the Grand Teton National Park, the village of Moran, huge Jackson Lake and many smaller lakes (yes, the fishing is fine!) and the headwaters of the Snake River are all in Jackson Hole.

Newest attraction is, of course, Jackson Lake Lodge, headquarters for the Rocky Mountain Medical Conference. This is but one of the many modernizing developments in the Jackson Hole area, including expansion of the National Park area itself, resulting from expenditures by Mr. John D. Rockefeller, Jr., in recent years. But, with all of the modern lodges, motels, hotels and other facilities, Jackson Hole and the entire region preserves all its rugged and beautiful natural attractions and all construction has been planned and carried out to emphasize rather than detract from these beauties.

What better way to combine a well-deserved rest with an interesting and up-to-date scientific program than to attend the Rocky Mountain Medical Conference and take the whole family? And, if the family prefers a camping trip, Colter Bay, just six miles from the headquarters hotel, offers everything from neat cabins to trailer space to well-planned and fully-equipped camp sites!

### Hotel-Motel Reservations

All requests for reservations should be made through the Wyoming State Medical Society. Due to the large advance registra-

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# SCIENTIFIC PROGRAM

## *The Rocky Mountain Medical Conference*

combined with the

*Fifty-Fourth Annual Meeting of the Wyoming State Medical Society*

JACKSON LAKE LODGE, MORAN, WYOMING

JUNE 15 TO 19, 1957

**NOTE:** Saturday and Sunday, June 15 and 16, will be devoted to activities of the Wyoming State Medical Society's House of Delegates, its Woman's Auxiliary, and preliminary entertainments. The Scientific Program begins on Monday, June 17. Please see later pages in this Special Section for details of the Auxiliary and House of Delegates' programs.

### **MONDAY MORNING, JUNE 17**

Chairman: Joseph S. Hellewell, M.D.,  
President, Wyoming State Medical Society.

**9:00**—"Complications of the Antepartum Period." John H. Randall, M.D., Professor of Obstetrics and Gynecology, State University of Iowa.

**9:30**—"Osteogenic Sarcoma—Incidence and Survival in View of Recent Statistical Studies." Mark B. Coventry, M.D., Section of Orthopaedic Surgery, Mayo Clinic.

**10:00**—"Management of Angina Pectoris and Related Disorders." William Dock, M.D., Professor of Medicine, State University of New York.

**10:30**—Recess.

**11:00**—"Operation for Coronary Artery Disease." Claude S. Beck, M.D., Professor of Cardiovascular Surgery, Western Reserve.

**12:00**—Discussion: "Coronary Artery Disease—Medical or Surgical?" Drs. Dock and Beck.

**12:30**—Recess.

### **MONDAY AFTERNOON, JUNE 17**

Chairman: George R. Buck, M.D.,  
President, Colorado State Medical Society.

**2:00**—"Surgical Emergencies in Infants and Children." Orvar Swenson, M.D., Surgeon-in-Chief, Boston Floating Hospital.

**2:30**—"Safety Factors in Surgical Treatment of Lesions of the Gallbladder." Frederick A. Collier, M.D., Professor of Surgery, University of Michigan.

**3:00**—"Ovarian Cysts, Benign and Malignant." Malcolm B. Dockerty, M.D., Section of Surgical Pathology, Mayo Clinic.

**3:30**—Recess.

**4:00**—Panel Discussion: "Management of Massive Gastrointestinal Bleeding." Drs. Swenson, Dockerty and Dock. Moderator: Dr. Collier.

**5:00**—Adjourn.

### **TUESDAY MORNING, JUNE 18**

Chairman: E. S. Murphy, M.D.,  
President, Montana State Medical Society.

**9:00**—"Some Problems in Pediatric Surgery." Orvar Swenson, M.D.

**9:30**—"The Non - Surgical and Surgical Treatments of Back Pains." O. Hugh Fulcher, M.D., Professor of Neurosurgery, Georgetown University.

**10:00**—The Earl and Bessie Whedon Lecture on Cancer: "The Importance of Cancer Re-

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**GUEST  
SPEAKERS**

ROCKY  
MOUNTAIN  
*M*EDICAL  
CONFERENCE



THOMAS H. MCALPHIN, M.D.  
*Director, Washington Office, American  
Medical Association*

**HOSTS**— Drs. B. J. Sullivan, Albert Sudman



WILLIAM DOCK, M.D.  
*Professor of Medicine, State University of  
New York*

**HOSTS**—Drs. Seymour Thickman, Mark Watson.



JOHN HAMMOND RANDALL, M.D.  
*Professor of Obstetrics and Gynecology,  
Iowa*

**HOSTS**—Drs. Robert Paul, Robert Bowden.

for MAY, 1957



DWIGHT H. MURRAY, M.D.  
*President, American Medical Association,*  
1956-57

**HOSTS**—Drs. Joseph Hellewell, Andrew Buntin.



O. HUGH FULCHER, M.D.  
*Professor of Neurosurgery, Georgetown*  
*University*

**HOSTS**—Drs. Lee Schreiner, Wilbur Wylar.



OVAR SWENSON, M.D.  
*Surgeon in Chief, Boston Floating Hospital*  
**HOSTS**—Drs. E. L. Lindahl, H. B. Anderson.

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FREDERICK AMASA COLLER, M.D.  
*Professor of Surgery, University of Michigan*  
**HOSTS**—Drs. Harry Durham, Nels Vicklund.

ROCKY MOUNTAIN MEDICAL JOURNAL



CLAUDE S. BECK, M.D.  
*Professor of Cardiovascular Surgery,  
 Western Reserve University*

**HOSTS**—Drs. Fred Haigler, William Hinrichs.



MALCOM BIRT DOCKERTY, M.D.  
*Professor of Pathology, University of  
 Minnesota, Mayo Foundation*

**HOSTS**—Drs. Donald Becker, Sam Zuckerman.



GEORGE C. HALL, M.D.  
*Associate Professor of Oncology, U.C.L.A.*

**HOSTS**—Drs. Earl Whedon, James Sampson.



MARK B. COVENTRY, M.D.  
*Section on Orthopaedic Surgery, Mayo Clinic*

**HOSTS**—Drs. Duane Kline, Gordon Whiston.

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search." George C. Hall, M.D., Associate Professor of Oncology, U.C.L.A.

10:30—Recess.

11:00—"What's Happening in Congress." Thomas H. Alphin, M.D., Director, Washington office of the American Medical Association.

11:30—"The A.M.A. and You." Dwight H. Murray, M.D., President of the American Medical Association, 1956-1957.

12:00—Discussion: "Current Problems." Drs. Alphin and Murray.

12:30—Recess.

## **TUESDAY AFTERNOON, JUNE 18**

Chairman: Samuel R. Ziegler, M.D., President, New Mexico State Medical Society.

2:00—"Peptic Ulcer or Gastric Cancer?" Dr. Dock.

2:30—"Cancer of the Colon and Rectum." Dr. Coller.

3:00—"Certain Pathologic Aspects of Carcinoma of the Stomach." Dr. Dockerty.

3:30—Recess.

4:00—Panel: "Are We Licking Cancer?" Drs. Hall, Dock, Dockerty, Fulcher, Randall. Moderator: Dr. Coller.

## **WEDNESDAY MORNING, JUNE 19**

Chairman: James Z. Davis, M.D., President, Utah State Medical Society.

9:00—"The Sero-flocculation Reaction in Health and Disease." Dr. Hall.

9:30—"Complications of the Puerperium." Dr. Randall.

10:00—"Treatment of Cardiac Arrest." Dr. Beck.

10:30—Recess.

11:00—"The Problem of the Unconscious Patient." Dr. Fulcher.

11:30—"Common Foot Problems Amenable to Surgical Therapy." Dr. Coventry.

12:00—Adjourn.

## **WOMAN'S AUXILIARY PROGRAM**

**Saturday, June 15, 1957**

12:00 Noon—Registration.

2:00 P.M.—Executive Board Meeting.

3:30 P.M.—General Meeting of the Auxiliary.

6:30 P.M.—Cocktails in the Auditorium.

**Sunday, June 16, 1957**

12:00 Noon—Luncheon, Installation of Officers—An address by Mrs. Paul Craig, National President of the Woman's Auxiliary to the American Medical Association.

2:00 P.M.—Post-Convention Board Meeting.

6:30 P.M.—Cocktails and Women's Mixer.

**Monday, June 17, 1957**

6:30 P.M.—Buffet Supper and Dance—Wort Hotel, Jackson, Wyoming.

**Tuesday, June 18, 1957**

6:30 P.M.—Cocktails and Outdoor Barbecue—Jackson Lake Lodge, Moran, Wyoming. Followed by a dance in the Auditorium.

Note: See the hostess in the lobby of the Jackson Lake Lodge for information concerning river trips, horseback riding, fishing, and baby sitters.

## **POCKET-SIZED PROGRAM**

Remembering a question that was asked two years ago just after the Rocky Mountain Medical Conference Program appeared in a special section of our Journal, we'll answer the question this time in advance—

Yes, there will be pocket-sized programs at the meeting, available to all who register. So, you don't need to tear out these colored pages and ruin the May issue of your Journal!



## TECHNICAL EXHIBITORS

The S. E. Massengill Co.  
W. B. Saunders Company  
Eaton Laboratories (Division of the Norwich  
Pharmaceutical Co.)  
Ritter Company, Inc.  
George Berbert & Sons  
Mead Johnson & Company  
Otis E. Glidden & Co., Inc.  
A. H. Robins Co., Inc.  
The Baker Laboratories, Inc.  
Eli Lilly & Company  
Schering Corporation  
Burroughs Wellcome & Company  
Darwin Laboratories  
The Upjohn Company  
Modern Office Equipment  
Milex-Fertilex Company  
Ross Laboratories  
Abbott Laboratories  
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Desitin Chemical Company  
Baby Development Clinic  
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Co.)  
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The Coca-Cola Company  
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Ayerst Laboratories  
General Electric Company  
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A. S. Aloe Company  
Johnson & Johnson  
Dairy Council of Wyoming

## ROCKY MOUNTAIN MEDICAL CONFERENCE CONTINUING COMMITTEES

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William M. Covode, M.D.  
H. Calvin Fisher, M.D.  
L. Clark Hepp, M.D.  
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Deane C. Epler, M.D.  
Arthur J. Movius, M.D.  
T. W. Saam, M.D.  
Edward S. Murphy, M.D.  
T. R. Vye, M.D.

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Charles Beeson, M.D.  
C. Lee Harris, M.D.  
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R. P. Middleton, M.D.  
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G. W. Koford, M.D.  
Brendan Phibbs, M.D.  
Earl Whedon, M.D.

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Paul Holtz, M.D.  
Oscar Veach, M.D., Chairman

Scientific Exhibits Committee  
Fred Haigler, M.D., Chairman

Entertainment Committee  
John R. Bunch, M.D., Chairman

Registration and Commercial Exhibits  
Mr. Arthun R. Abbey

## SCIENTIFIC EXHIBITS

Urethral Regeneration, Robert C. Weaver, M.D.,  
Salt Lake City.  
Nephrotomography, Raymond R. Lanier, M.D.,  
University of Colorado Medical Center, Den-  
ver.

(Continued from Page 455)

tion, the Lodge at Jackson Lake is already completely reserved, but many equally modern and well-appointed accommodations are available at nearby motels and lodges. Indicate the type of accommodations which you will need and enclose \$10.00 deposit with your request. Deposits will be returned only if cancellations are made at least five days prior to the meeting.

**TENTATIVE AGENDA**  
**HOUSE OF DELEGATES MEETING**  
**June 15 and 16**  
**WYOMING STATE MEDICAL SOCIETY**

**ORDER OF BUSINESS**

1. Call to order.
2. Reading of the Minutes, as published in the Rocky Mountain Medical Journal, of the Interim Meeting held in Casper, Wyoming.
3. Credentials Committee Report — Dr. Benjamin Gitlitz, Chairman.
4. Old Business.
5. Resolutions Committee—Dr. H. B. Anderson, Chairman.
  - a. Introduction of new resolutions.
6. Reports of Officers.
7. Auditing Committee Report.
8. Committee Reports.
9. New Business.
  - a. Nominations—Blue Shield Trustees.
  - b. Harvey T. Sethman, Managing Editor, Rocky Mountain Medical Journal, Report.
  - c. Dr. George P. Lingenfelter, fraternal delegate from Colorado to the Wyoming State Medical Society, Report.
  - d. Dr. Franklin D. Yoder, Editor, Wyoming Section, Rocky Mountain Medical Journal, Report.
10. The President's Annual Address.
11. Nominating Committee Report.
12. Election of Officers.
13. Election of Elected Committee Members.
  - a. Councilors.
  - b. Professional Review Committee.

- c. Selective Service.
- d. Rocky Mountain Medical Conference.
- e. Judicial and Advisory Committee.

14. Induction of President-elect.
15. Adjournment.

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**REGISTRATION AT THE R.M.M.C.**

Registration at the Rocky Mountain Medical Conference is open to any Doctor of Medicine who is a member in good standing of his State Medical Society. Registration is not limited to physicians within the five states which participate in managing the Conference.

The registration fee for this meeting of the Conference is \$15.00. The registration fee does not apply to members of the physician's family who may accompany him to the meeting. Each physician will be given an identification badge, and admission to all Conference activities will be by badge only. Separate tickets will be on sale at the Registration Desk for the Round-Table Luncheons and the Banquet.

The \$15.00 registration fee includes a \$5.00 registration fee for wives of physicians attending this conference.

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**THE R.M.M.C. RUNS BY THE CLOCK!**

The Scientific Programs of the Rocky Mountain Medical Conference are run by the clock, to the minute. This has been true of the previous meetings, and it will be true at Jackson Lake Lodge.

All meetings will begin on time, all speakers will be required to begin their presentations exactly on time, and none will be permitted to speak longer than as scheduled in the program. All who attend the Conference are requested to assist the speakers and benefit themselves by being in the meeting room a few minutes in advance of the papers they wish to hear. Any member who arrives late to hear any particular paper is assured that he will miss part of that paper! Also, his late arrival would be disturbing to the speaker and to the audience alike.

(Continued from page 452)

dry, urine albumin 3+, microscopic, few casts. Strict low sodium diet given with continuance of phenobarbital and addition of Raudixin 50 mgm. q.i.d. Five days later patient showed gas bloating, pain in abdomen, and vomiting; weight 131, B.P. 210/118, urine 4+ albumin, microscopic, many granular casts and RBC's. Patient at this time showed puffiness under eyes, skin appeared thick, puffy and transparent but there was no pitting edema. Heart, systolic murmur at apex transmitted toward axilla (not previously present). Abdomen, size six-month pregnancy. Fetal heart tones satisfactory. At this time a history of poor, inadequate diet was obtained. Patient had been drinking cola beverages instead of eating meals.

Treatment: Hospitalized, 1,000 c.c. 5 per cent glucose in distilled water I.V. and 1,000 c.c. Hyprotigen solution given daily for two days until vomiting was controlled; (2) high protein, low sodium diet; (3) ammonium chloride gr. 7½ #4 tablets q.i.d. p.c. and h.s.; (4) Mercuhydrin 1 c.c. daily; (5) daily weight check. Blood urea nitrogen was elevated (36.7). Total proteins were slightly low, 6.4 (6.5-8.2 normal). There was a reversal of the A.G. ratio (albumin 1.4, globulin 5), hemoglobin 16.8 and hematocrit 50. The patient responded dramatically to this treatment. Blood urea nitrogen returned to normal, and total blood proteins rose to normal. She received 1 c.c. Mercuhydrin daily for five days and on the ninth hospital day. In spite of increased dietary intake, the patient lost five pounds in six days, showing a greater amount of interstitial edema than was clinically apparent. The patient was discharged on the tenth hospital day. On date of discharge the urine had improved to albumin 2+ with an occasional cast and RBC, B.P. was 140/82. The patient continued treatment at home much as in the hospital except Mercuhydrin was given only once. Two weeks after returning home, the patient's weight was 131, B.P. 132/88, pulse 88, urine 2+ albumin, occasional casts and RBC. Fetal heart rate was 140. Five days later the patient went into labor spontaneously and gave birth to a stillborn baby. After delivery, the urine was soon clear of casts and blood but albumin persisted for four to five months. This case has had a subsequent pregnancy and was delivered of a full term baby without rise in blood pressure or other complications.

Case 2: E. B., aged 30, para. I. First examination, weight 118 lbs., B.P. 110/60. The patient had regular prenatal care for five and one-half months, then she missed one appointment and came back in six weeks weighing 140 lbs., an eleven-pound gain. The skin was dry, urine negative, B.P. 130/76. Advised low sodium, high protein, low calorie diet. Patient was to return in two weeks. She contracted an upper respiratory infection eleven days later. Epigastric pain, headaches and dizziness and some swelling of

ankles noted on twelfth day. Seen in convulsions at her home next day. B.P. 166/94, puffy eyes, skin plethoric but there was no pitting edema. Patient catheterized at home and simple heating of urine showed albumin. She was given 2 c.c. demerol and sent to hospital where orders were given as follows: 2 c.c. Mercuhydrin, Luminal gr. 2, I.M., chloral hydrate gr. 30 t.i.d. per rectum. Magnesium sulphate 20 c.c. 10 per cent I.V. slowly and as ordered (three doses given during day).

The patient had a marked diuresis. She regained consciousness and there were no more seizures. The following day her B.P. was 140/80, weight 130 lbs., hemoglobin 14 gm., hematocrit 42. She went into labor and delivered spontaneously. Baby and mother both did well in the postpartum period. Two uneventful subsequent pregnancies have occurred in this patient.

Case 3: S. O., aged 28, primipara was six and one-half months pregnant. She was convulsing, B.P. 152/100, eyes puffy, face swollen, skin thick, pitting edema back, buttocks and legs. Urine, albumin 4+, red blood cells present, CO<sub>2</sub> combining power 37, RBC 3,950,000, hemoglobin 12.3 gm., hematocrit 40.

She had entered the hospital nine days previously for severe pre-eclampsia. Hospital treatment had included bed rest, magnesium sulphate, hypertonic glucose, Luminal, Apresoline. The patient noted blurred vision on eighth hospital day and went into convulsions. Ether was given to control convulsions. Retention catheter placed. Following convulsions, doses of magnesium sulphate were increased to 20 c.c. every hour plus a total of 1,000 c.c. of 25 per cent glucose followed by 25 c.c. of 50 per cent glucose. Convulsions recurred on ninth hospital day, at which time the following orders were added: Luminal gr. 2 and phenobarbital gr. ¾ t.i.d., chloral hydrate gr. 7½ p.r.n. for restlessness, gr. 15 by rectum if needed, 1,000 c.c. 5 per cent glucose, 1 c.c. Mercuhydrin stat and daily. Output the first nine hospital days had not exceeded 750 c.c. per twenty-four hours. After starting Mercuhydrin, the output increased to 2,200 c.c. or more daily. The patient lost her edema. The B.P. came down. Urinary albumin continued 2-4+. She had a low sodium, high protein diet until the thirty-ninth hospital day when she began to show signs of impending eclampsia. Mercuhydrin 1 c.c. I.M. was given along with ammonium chloride gr. 7½ #4 t.i.d. and patient was improved by that same evening. She was eight months pregnant and it was felt that induction was indicated. The cervix was 2 cm. long and one finger dilated. Labor was induced by rupturing the membranes and using Pitocin 1 c.c. to 1,000 c.c. 5 per cent glucose in distilled water, 30 drops I.V. per minute. Labor was established within two hours by this method. A four-pound four-ounce baby was delivered by breech extraction. Mother and baby both did well in the postpartum period. The B.P. came

back to normal. The albumin and casts were clear after four to five months. This case has had two subsequent pregnancies, both carried to full term. There was a month of anxiety during the second pregnancy. Fluid retention occurred with increasing blood pressure and albuminuria. These symptoms were checked promptly and disappeared with high protein, low sodium diet, and ammonium chloride.

#### Summary

Low plasma protein and excessive hydration of the interstitial and intracellular compartments are the primary defects of

eclampsyogenic toxemia. Prevention of these defects and other initiating factors requires alert application of all the elements of good prenatal care. Dehydration is essential when symptoms occur and is accomplished with a low sodium, liberal protein diet and the use of ammonium chloride. A case which is not controlled can be adequately and safely dehydrated with a mercurial diuretic. By these methods pre-eclampsia is controllable, if not curable, and eclampsia is preventable.

## Acute Adrenal Insufficiency In Pneumonia

Alvin S. Hartz, M.D.

FARMINGTON, NEW MEXICO

*This complication in pneumonia could easily be overlooked.  
Hormone therapy changed the clinical picture in these cases.*

USE of cortisone compounds in treatment of chronic ailments of various types has been widely advocated and perhaps more widely practiced. Undoubtedly in diseases of a crippling nature such as rheumatoid arthritis, great symptomatic benefit has been achieved. Nevertheless, there is risk in the long term use of the steroid hormones. These hormones suppress the activity of the adrenal cortex. Atrophy and histologic changes, as well as evidence of decreased responsiveness of the gland to adrenocorticotrophic hormone have been demonstrated in experimental animals and in clinical material; and finally, in autopsied human subjects who have taken corticoids for some time, histologic changes and adrenal atrophy have been demonstrated. Patients who are suddenly withdrawn from hormone therapy frequently show signs of asthenia, apparently due to lack of adrenal cortical hormone endogenously produced. In surgical procedures where the organism is subject to stress, the patient on maintenance doses of corticoids may not produce enough of the material from his own adrenals. Deaths have been reported from minor surgical procedures, presumably because of

relative adrenal cortical insufficiency in times of stress.

Chronic intractable asthma is one crippling disease for which adrenal cortical substances have been used. Patients suffering from asthma are subject to infections of the lower respiratory tract with resulting bronchitis, bronchopneumonia, and pneumonia. This, too, is a stress situation which might produce relatively high demands on the adrenals for hormone. When an asthmatic on maintenance dosage of steroid therapy develops a severe respiratory infection, he could also develop signs of adrenocortical deficiency. Two patients, both of them asthmatics on long term steroid therapy, developed pneumonia and showed strong clinical evidence of an Addisonian crisis:

#### CASE 1

L. W., a 33-year-old married secretary, was admitted to the San Juan Hospital on December 26, 1954, because of excessive fatigue and fever. She had been under the treatment of numerous physicians because of asthma and for the previous two years had been taking, among other medicaments, 50-75 milligrams of cortisone daily. She had had fatigue during the previous two months. On the day before admission, while on an out-of-town visit, she developed a fever

of 103°. She returned home on the day of admission, was examined in the emergency room and admitted.

At the time of admission, she did not appear severely ill but was apathetic and drowsy. Her temperature was 100.4°; pulse, 120; respiration, 24; blood pressure, 82/60. The general physical examination was negative except for numerous rhonchi throughout the chest. Her hemoglobin was 12.0 gms; RBC, 4,310,000; WBC, 11,000 with 71 per cent segmented forms, 20 per cent stabs, and 9 per cent lymphocytes. The urinalysis was negative. A chest x-ray taken a day after admission showed infiltration in the left upper lobe.

A few hours after admission, the patient appeared extremely ill. She was unresponsive and a pulse could not be felt. Blood pressure was 60/32. There were several episodes of vomiting. The patient was treated intensively with large doses of cortisone, lipo-adrenal extract, levo-phed, saline, glucose, plasma expanders and antibiotics. By the next morning, twelve hours after admission, blood pressure had risen to 82/60 and the patient looked as well as she had on admission; from that time on improvement was rapid. Gradually decreasing doses of cortisone were given.

Sputum studies were negative for acid fast organisms. A preliminary Kepler water test was negative for Addison's disease five days after admission. Blood pressure on discharge was 132/80, eight days after admission. Pulmonary infiltration disappeared within two weeks.

#### CASE 2

A. H., a 52-year-old pipe-fitter, was admitted to the San Juan Hospital on February 6, 1956, with the complaint of chest pain and dyspnea. The illness had its sudden onset the previous evening when there were chilly sensations associated with pain in the substernal and precordial region, radiating to the back. The next morning breathing was labored and he was admitted to the hospital.

The history revealed that the patient had been in an automobile accident in 1950. Shortly thereafter, he began to suffer from episodes of dyspnea associated with chest pain and relieved almost immediately by an injection. These episodes were interpreted as asthma by his physician and treated with cortisone. For the six months before admission, 15 milligrams of prednisolone were given per day. He had had severe penicillin reactions in the past.

Physical examination revealed a thin, middle aged male in extreme respiratory distress. His temperature was 98.8°. Heart sounds were heard with difficulty. Blood pressure was 64/40 on admission. The chest was emphysematous. The percussion note was resonant anteriorly; however, numerous crepitant rales were heard over the left lung posteriorly. The remainder of the examination revealed nothing significant.

Initial hemoglobin was 14.9 grams with

4,900,000 RBC's, 8,200 WBC's with 52 per cent segmented neutrophils and 48 per cent lymphocytes. The first urine obtained showed 2 plus albumin and some granular casts. EKG showed no substantial abnormality. Portable chest film showed a large wedge-shaped shadow in the left mid-lung.

Therapeutic efforts were directed primarily to combating shock. In the first few hours, when he was thought to have suffered a cardiovascular accident, he was given nor-epinephrine intravenously. Soon after admission the blood pressure became unobtainable. His subsequent treatment included large doses of hydrocortisone intravenously, desoxycorticosterone, oral prednisolone, salt, glucose, oxygen, morphine, and oxytetracycline. The blood pressure was unobtainable for more than twenty-four hours. For the next forty-eight hours, the systolic blood pressure levels remained between 78 and 94. It was not until three days after admission that a systolic blood pressure of 100 was reached. The general condition of the patient slowly improved. The infiltration in the left lung which was believed to be pneumonia resolved in one week. However, a dense consolidation of the right upper lobe supervened, and did not resolve until some time after the patient's discharge on February 25, 1956. Blood cultures were negative. Sputum showed numerous gram positive diplococci and pus cells. No tubercle bacillae were found. There was nitrogenous retention at the height of the illness but this subsided by the time of discharge. The patient had no fever until three days after admission and this persisted until his discharge. There was no leukocytosis until there was spread of the infection to the right upper lobe six days after admission.

#### Discussion

Both these patients presented features which were unusual for acute pulmonary infections and pointed strongly toward adrenocortical insufficiency. Each showed hypotension and asthenia. Evidences of infection such as leukocytosis and fever were suppressed. Although the diagnosis of adrenocortical insufficiency in these two cases cannot be supported by detailed laboratory evidence, it is felt that the striking clinical features support this opinion. The long term administration of cortical steroids might certainly be expected to lay the groundwork for the failure of the adrenal cortex to function in an emergency.

Adrenocortical hormones must be administered with caution. This report indicates that where complications such as infections may be expected, even more caution should be exercised.



# Mephate in the Post-Alcoholic Syndrome\*

Harold I. Goldman, M.D.

DENVER

*This drug, administered orally, appeared to be helpful in four-fifths of cases treated.*

**M**EPHATE is a combination of mephenesin (1,2 dihydroxy-3-(2-methylphenoxy)-propane) 0.25 gm. plus glutamic acid HCl 0.30 gm. The glutamic acid is said to enhance the action of the mephenesin to such an extent that smaller doses of that drug will produce the desired effect and so lessen the possibility of the toxic curare-like effect described with large doses of mephenesin. The post-alcoholic syndrome has a varied symptom complex as observed by the author. In his experience it varies from the acutely agitated, at times violent, patient to the "hangover" state with its attendant mild tremor, headache, and gastric distress, with varying stages of both extremes between. Beneficial reactions from the use of mephenesin alone have been reported by Herman and Effron<sup>1</sup> in sixty patients; by Gottesfeld and Mann<sup>2</sup> in sixty-five patients; by Paul<sup>3</sup> in eight patients; by Schlan and Unna<sup>4</sup> in eight patients; by Goldman<sup>5</sup> in 242 patients.

This report deals with the study of the effect of Mephate on the post-alcoholic syndrome in 556 subjects; 456 of these cases were seen at the City Jail immediately after an intake of sufficient alcoholic beverage to render them "drunk"; 100 cases were seen at the County Jail where the interval of time that they were picked up as "drunk" and the time they were received at the County Jail was at least twenty-four hours.

\*Capsules of Mephate were kindly supplied by the A. H. Robins Co., Inc. The author wishes to acknowledge with thanks the help given him in this study by Dr. Burton Forbes.

The medication was not given to any inmate for the treatment of chronic alcoholism per se, but rather for its expected tranquilizing effect on the post-alcoholic state. Subjects brought to the City Jail in an acutely agitated state were hospitalized immediately for definitive treatment of their "wet brain" status. Similarly subjects at the County Jail who became acutely agitated at a longer interval of time between their excessive alcoholic intake and the appearance of acute agitation were hospitalized.

The 556 cases treated with this preparation had an age range from 16 years to 76 years of age, with the predominant age group between 30 and 50 years of age. In this group there were 487 males and sixty-nine females; 236 cases in this group were in jail for "drunk" for the first time; 320 cases had been in jail for "drunk" from twice to thirty times. In all cases the preparation was administered by mouth in capsule form. Two capsules were given immediately upon onset of symptoms after their admission to the jail, and then one or two capsules every two hours thereafter as needed, but not to exceed six doses. If no beneficial effect could be observed at the end of a twelve-hour period, the drug was discontinued.

The results were graded as follows: 1. Good when the psychomotor agitation, gastric symptoms, tremor or insomnia were relieved entirely. 2. Fair when the presenting symptoms were relieved enough for the subjects to be able to care for them-

selves. 3. Poor when no beneficial effect at all could be observed at the end of twelve hours or when the agitation increased despite the medication and more drastic therapeutic measures became imperative. Of the 456 cases observed at the City Jail the results were classified as follows: Good in 297 cases; fair in 71 cases; poor in 87 cases. Of the 100 cases seen at the County Jail, they were classified as follows: Good in 68 cases; fair in 17 cases; poor in 8 cases, but with eventual recovery not requiring hospitalization; very poor in seven cases, which had to be hospitalized for definitive treatment.

The over-all grading of results obtained in the 556 subjects was 365 or 65 per cent

good, 88 or 15 per cent fair, 102 or 20 per cent poor. No significant difference was observed in the results obtained between the known chronic alcoholic and those put in jail for "drunk" for the first time.

#### Summary

Of 556 patients suffering from the post-alcoholic syndrome treated with a combination of mephenesin and glutamic acid HCl, beneficial results were observed in 80 per cent of the cases so treated.

#### REFERENCES

- <sup>1</sup>Herman, Morris, and Effron, Abraham: *Quart. J. Study Alcohol*, 12:261-267 (June, 1951).
- <sup>2</sup>Gottesfeld, B. H., Mann, N., and Conway, E.: *Conn. Med. J.*, 5:678-681 (August, 1951).
- <sup>3</sup>Paul, Louis: *Psycho. Med.*, 14:5 (1952).
- <sup>4</sup>Schlan, L. S., Unna, K. R.: *J.A.M.A.*, 140:672-673.
- <sup>5</sup>Goldman, H. I.: *Rky. Mt. M. J.*, 51:8, 698-699. (August, 1954).

## *Responsibilities of the Medical Profession In the Use of X-Rays and Other Ionizing Radiation\**

1. The United Nations General Assembly, being aware of the problems in public health that are created by the development of atomic energy, established a Scientific Committee on the Effects of Atomic Radiation. This Committee has considered that one of its most urgent tasks was to collect as much information as possible on the amount of radiation to which man is exposed today, and on the effects of this radiation. Since it has become evident that radiation due to diagnostic radiology and to radio-therapy constitutes a substantial proportion of the total radiation received by the human race, the Committee considers it desirable to draw attention to information that has been obtained on this subject.

2. Modern medicine has contributed to the control of many diseases and has substantially prolonged the span of human life. These results have depended in part on the use of radiation in the detection, diag-

nosis and treatment of disease. There are, however, few examples of scientific progress that are not attended by some disadvantages, however slight. It is desirable therefore to review objectively the possible present or future consequences of increased irradiation of populations which result from these medical applications of radiation.

3. It is now accepted that the irradiation of human beings, and particularly of their germinal tissues, has certain undesirable effects. While many of the somatic effects of radiation may be reversible, germinal irradiation normally has an irreversible and therefore cumulative effect. Any irradiation of the germinal tissues, however slight, thus involves genetic damage which may be small but is nevertheless real. For somatic effects there may however be thresholds for any irreversible effects, although if so these thresholds may well be low.

4. The information so far available indicates that the human race is subjected to

\*Statement by the United Nations Scientific Committee on the Effects of Atomic Radiation.

natural radiation,\* as well as to artificial radiation due to its medical applications, to atomic industry and its effluents and to the radioactive fall-out from nuclear explosions. The Committee is aware of the potential hazards that such radiation involves, and it is collecting and examining information on these subjects.

5. The amount of radiation received by the population for medical purposes is now, in certain countries, the main source of artificial radiation and is probably about equal to that from all natural sources. Moreover, since it is given on medical advice, the medical profession exercises responsibility in its use.

6. The Committee appreciates fully the importance and value of the correct medical use of radiation, both in the diagnosis of a large number of conditions, in the treatment of many such diseases as cancer, in the mass detection of conditions such as pulmonary tuberculosis, and in the extension of medical knowledge.

7. Moreover, it appreciates fully the contribution of the radiological profession, through the International Commission on Radiological Protection,† in recommending maximum permissible levels of irradiation. As regards those whose occupation exposes them to radiation, the establishment of these levels depends on the view that there are doses which, according to present knowledge, do not cause any appreciable body injury in the irradiated individual; and also on the consideration that the number of people concerned is sufficiently small for the genetic repercussions upon the population as a whole to be slight. Whenever exposure of the whole population is involved,

however, it is considered prudent to limit the dose of radiation received by germinal tissue from all artificial sources to an amount of the order of that received from the natural background radiation.

8. It appears most important therefore that medical irradiations of any form should be restricted to those which are of value and importance, either in investigation or in treatment, so that the irradiation of the population may be minimized without any impairment of the efficient medical use of radiation.

9. The Committee is consequently anxious to receive information through appropriate governmental channels as to the methods and the extent by which such economy in the medical use of radiation can be achieved, both by avoiding examinations which are not clearly indicated and by decreasing the exposure to radiation during examinations, particularly if the gonads, or the foetus during pregnancy lie in the direct beam of radiation. It seeks, in particular, to obtain information as to the reduction in radiation of the population which might be achieved by improvements in instrument design, by fuller training of personnel, by local shielding of the gonads, by choosing appropriately between radiography and fluoroscopy, and by better administrative arrangements to avoid any necessary repetition of identical examinations.

10. The Committee also seeks the cooperation of the medical profession to make possible an estimate of the total radiation received by the germinal tissue of the population before and during the child-bearing age. It considers it to be essential that standardized methods of measurement, of types at present available, should be widely used to obtain this information and it emphasizes the value of adequate records, maintained by those using radiation medically, by the dental profession, and by the responsible organizations in allowing such radiation exposure to be evaluated. The Committee is convinced that information of this type will make it possible to decrease the total medical irradiation of the population while preserving and increasing the true value of the medical uses of radiation.

\*The radiation due to natural sources has been estimated to cause between 70 and 170 millirem of irradiation to the gonads per annum in most parts of certain countries in which it has been studied, although higher values are found locally in some areas. See the reports "The hazards to man of nuclear and allied radiations," published by the United Kingdom Medical Research Council in June, 1956, in which also the millirem is defined; and from information submitted to the Committee.

†See the report of the International Commission on Radiological Protection (published in the *British Journal of Radiology*—Supp. 6, of December, 1954—in the *Journal français d'électroradiologie*—No. 10, of October, 1955—etc., and revised in 1956).

## Correspondence



**EDITOR'S NOTE:** The following letter, addressed to the American Medical Association's Chicago headquarters, first appeared a month ago in Dr. George F. Lull's "Secretary's Letter," which is mailed frequently to officers of national, state, and county medical societies. We loved it! And we immediately felt it should have wider circulation. Dr. Lull originally withheld the writer's name, but since then has obtained permission to use it and thus give credit where (we all agree) credit is certainly due. The author is not a physician.

Gentlemen:

For many years past I have been what might be termed an amateur student of medicine. I have also been interested more particularly in the organizations which have taken upon themselves the collection of monies to be devoted largely to the eradication of various diseases which still plague mankind.

Lately, this matter of raising funds for research looking to the cure of some dread malady has so intrigued me that I am seized with an uncontrollable desire to start a Foundation of my own. I have an impressive roster of sponsors, including such well-known names as James DeWitt Rockefeller (local boy), Horace Pulham Whitney (an up country lad), and many more equally famous. I have had an impressive letterhead designed by a leading commercial artist. I have an exceptionally fine mailing list of persons in the upper income brackets.

My purpose in writing to you, gentlemen, is to plead for your assistance in one simple aspect of my plans; namely, won't you select a good disease for me? I have thought of beri-beri, pellagra, elephantiasis, trichinosis, and many others, but when I look up the words in the dictionary, I always encounter some difficulty; the first three are tropical and I don't want to have to confine my efforts to the deep south. The fourth has something to do with pigs and certainly does not have the romantic urge so sorely needed for the success of a project of this kind. I rather fancied leukemia but only recently it was taken by another group. (I always thought it was a cancer of the red blood cells but I guess I was wrong.) Do you think that "Auricular and Ventricular Fibrillation" has possibilities? It has a beautiful ring to it, a sort of poetic, rhythmic

for MAY, 1957

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cadence and, even though it is only a mild heart condition, I doubt that many prospective donors would look it up.

But I shouldn't be expatiating on my own ideas when I intend to be guided solely by your good advice in the matter. Might I also suggest that you name an alternate, since by the time your letter arrives, the first selection may already be taken.

When I really have my organization in a sound financial position, I plan to underwrite what might be termed an auxiliary charity. With the continuing success of the Salk vaccine, there will undoubtedly be many people in that field without jobs, and I propose insofar as possible to absorb them into my organization, thus avoiding a major unemployment problem.

It follows, therefore, that the ailments you suggest must present almost insurmountable obstacles to the research scientists, since I do not want them to arrive at a successful conclusion in a mere matter of a year or two. Such an unhappy contretemps would only necessitate a fresh start, all of which would be demoralizing to staff and contributors.

I await with anxiety your prompt reply. Thank you!

NORMAN B. GROBERT,  
Mendham Road,  
Morristown, New Jersey.

Mr. Ralph R. Marshall, Executive Secretary  
New Mexico Medical Society  
First National Bank Building  
Albuquerque, New Mexico.

Dear Ralph:

I read with much interest under ARTICLES—"Down with the Love Gift," appearing in Rocky Mountain Medical Journal, March issue, written by a doctor's wife in New Mexico. This article could be followed by another in response suggesting AMEF which might be a solution to a recognized delicate problem.

Cordially,

THE ARIZONA MEDICAL ASSOCIATION, INC.  
Robert (Bob) Carpenter,  
Executive Secretary.

#### DR. ALLMAN TO ASSUME AMA PRESIDENCY IN JUNE

The American Medical Association's presidential oath of office will be administered to David B. Allman, M.D., of Atlantic City, N. J., in impressive ceremonies at 8:30 p.m., Tuesday, June 4, in the grand ballroom of the Waldorf-Astoria Hotel, New York. Besides Dr. Allman's inaugural address, the program will also feature musical selections by the United States Army Chorus, Washington, D. C.; remarks by outgoing President Dwight H. Murray, M.D., of

(Continued on page 476)

# Thirst, too, seeks quality





# Harmonyl\*

(Deserpidine, Abbott)

anquilizer. For instance, following an eight-month study of chronic, hospitalized mental patients, Ferguson<sup>1</sup> reported:

Harmonyl benefited at least 15% more overactive patients than oral reserpine.

Harmonyl was more potent in controlling aggression, requiring only one-half to two-thirds the dosage of reserpine.

A number of patients experiencing side reactions on reserpine were completely relieved when changed to Harmonyl.

In this summary Ferguson concluded: "*The most notable impressions were the absence of side effects and relatively rapid onset of action with Harmonyl.*"

## Harmonyl in hypertension

Hypertension studies show that the average reduction in blood pressure obtained with Harmonyl compares closely to that obtained with reserpine. The tranquilizing effect of the two drugs also appeared similar, except that few cases of giddiness, vertigo, sense of detached existence or disturbed sleep were observed with patients receiving Harmonyl.

**Dosages** In mild anxiety, as little as 0.1 mg. of Harmonyl a day may be effective. In institutionalized psychiatric patients, at less than 2 to 3 mg. a day is likely to be beneficial.

In mild essential hypertension, treatment may be started with the 0.25-mg. tablet three or four times a day. After about ten days (or sooner, depending upon response), dosage may be reduced. A maintenance dose of 0.25 mg. daily is often sufficient.

**Precautions.** As with other forms of rauwolfia, Harmonyl must be used cautiously in peptic ulcer and epilepsy and in patients about to undergo surgery or electroshock treatment. Despite infrequent reports involving depression, patients with history of depressive episodes should be watched carefully.

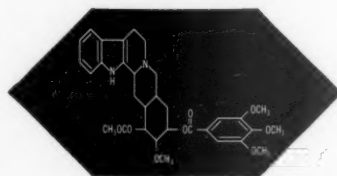
**Professional literature** is available upon request.

**Applied:** Harmonyl is supplied in 0.1-mg., 0.25-mg. and 1-mg. tablets.

Abbott

Reference: 1; Ferguson, J. T.: Comparison of Reserpine and Harmonyl in Psychiatric Patients: A Preliminary Report, *Journal Lancet*, 76:389, December, 1956.

\*Trademark



(Continued from page 472)

Napa, Calif., and presentation of the Distinguished Service Award to the recipient selected by the House of Delegates.

A portion of the inaugural ceremony—from 9 p.m. to 9:30 p.m.—will be telecast over New York station WABD, Channel 5.

Immediately following the ceremonies, Dr. and Mrs. Allman will receive physicians, exhibitors and guests at the annual reception in the east ballroom. The presidential ball will begin at 10 p.m. and continue until 1 a.m. in the grand ballroom.

#### BUSINESS PROBLEMS ASSOCIATED WITH NEW PRACTICES

A series of ten film presentations dramatizing the business problems of starting a new practice is now being released by Mead Johnson & Company for showing to medical students, interns, and residents.

Entitled "Business Management in Medical Practice," the copyrighted series consists of the films with accompanying commentaries by specially trained Mead Johnson representatives. Showings will be available to medical teaching centers and hospitals.

The first film, "Where Should I Practice?" is scheduled for release April 1.

The second and third films, "Financing the New Practice" and "Solo, Partnership, or Group Practice?" will be released about July 1.

Other films in the series will be released individually at appropriate intervals.

If 1915 mortality rates had prevailed last year, Health Information Foundation points out, an additional 300,000 of the four million babies born alive would not have lived to celebrate their first birthday.

(Continued from page 444)

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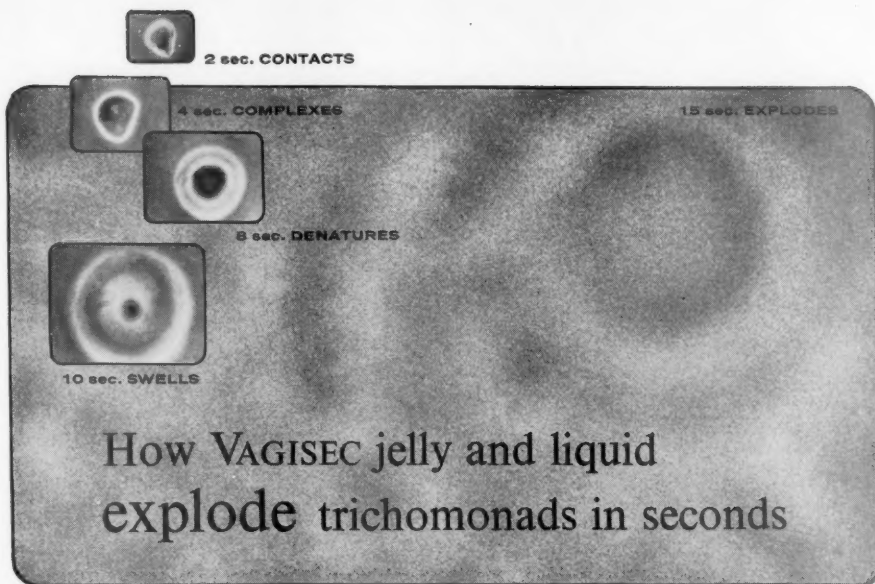
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**Explosion succeeds**—VAGISEC liquid and jelly penetrate rapidly to trichomonads covered by vaginal mucus and cellular debris and *explode* them, avoiding post-treatment flare-ups.<sup>3-5</sup> VAGISEC therapy often rids stubborn clinical cases of "trich" even after other agents fail.

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## ORGANIZATION

### Colorado



### Component Societies

#### ARAPAHOE COUNTY

On Tuesday evening, March 26, 1957, the Arapahoe County Medical Society held its monthly meeting at the Tiffin Restaurant. This meeting was held jointly with the Woman's Auxiliary of the Society.

The program for the evening was a resume of a trip to Africa by Nolie Mumey, M.D. This consisted of a series of colored slides about the "Bush Country" in Africa and a display of souvenirs from Africa consisting of wood and ivory carvings, spears, beads, and other native art work.

A short business meeting was held after the program. William S. Haynes, M.D., Medical Director of the Tri-County Health Department, was approved as an associate member of the Society.

A committee was appointed to investigate setting up, by the County Society, public clinics for polio immunization with services donated by participating doctors.

Information was received that the Visiting Nurses' Association is to be divided into a Denver and a Tri-County Association, thus giving the local Society members' patients better service.

#### SCIENTIFIC EXHIBIT AWARDS

An important feature of the Midwinter Clinical Session held in Denver was the Scientific Exhibits. The scientific exhibits, in past years, were displayed at the Annual Sessions. Due to a lack of sufficient exhibit space in hotels in Colorado Springs and Estes Park, the Society has changed its regulations to permit scientific exhibits at future clinical sessions. These meetings are held in Denver each year.

The following exhibits, in the opinion of the judges, were outstanding:

#### Certificate of Award

"Intravenous Fat Emulsions": By Norman Witt, Ph.D.; Major Jack Mueller, MC; Captain Allen Forbes, MC, and Jack Iacono, Ph.D., Denver.

#### Certificate of Award

"Fibrinolysis and Hemorrhage; Diagnostic  
(Continued on page 481)

(Continued from page 478)

and Therapeutic Implications": By Kurt von Kaula, M.D., and E. Stewart Taylor, M.D., Denver.

#### Certificate of Award

"Phenylketonuria": By Frederick A. Horner, M.D.; Charles W. Streamer, M.D.; Edward L. Binkley, M.D., and Kenneth Dumas, M.D., Denver.

#### Certificate of Award

"Management of Vascular Injuries": By Robert H. Hughes, M.D., Denver, and Ben Eisenman, M.D., Denver.

#### First Award

"Some New Techniques of Renal Radiography": By Raymond R. Lanier, M.D., and D. A. van Velzer M.D., Colorado General Hospital.

#### Grand Award

"Sudden or Unexpected Death": By Albert J. Miller, M.D., Pueblo; Henry W. Toll, M.D., and Richard Herrmann, M.D., Denver.



## Woman's Auxiliary

### THIRTY-FOURTH ANNUAL MEETING OF WOMAN'S AUXILIARY TO THE AMERICAN MEDICAL ASSOCIATION

New York State is honored by serving as host to the American Medical Association and its Woman's Auxiliary, the latter the parent body of all State and County Auxiliaries.

Headquarters for the Auxiliary's meeting will be the Hotel Roosevelt at Madison Avenue and 45th Street, New York City, from June 3 to 7, 1957. The Roosevelt is within walking distance of the Waldorf-Astoria Hotel, where the AMA's House of Delegates meet, and proximity to Fifth Avenue and Madison Avenue shops, theaters and innumerable points of interest make the location of headquarters ideal.

Registration will open on Sunday, June 2, 11:30 a.m. to 4:00 p.m., and continue through Thursday. On Monday, June 3, and Wednesday afternoon, June 5, there will be round table discussions of interest and educational value to all physicians' wives. Members and guests are cordially invited. The general meeting will be held Tuesday, Wednesday, and Thursday until noon, and a Board of Directors' meeting at 1:00 o'clock on Thursday, and a Post-Convention Workshop for State Presidents, Presidents-elect and National Committee Chairmen on Friday, June 7.

for MAY, 1957

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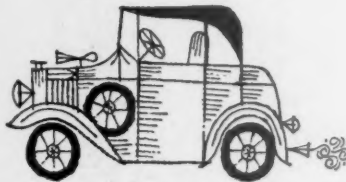


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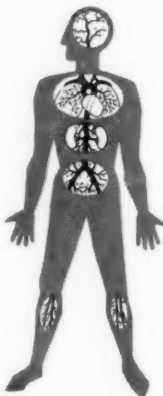
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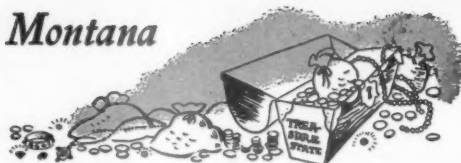


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## Montana



## News Briefs

### THE INTERIM SESSION

The Interim Session of your Association in Helena, was attended by a large number of Montana physicians. Our registration records indicate that there were 134 Montana physicians, two out-of-state physicians, and three lay guests. In addition, about sixty wives of Montana physicians were in Helena for the luncheon and program of the Woman's Auxiliary to this Association.

The scientific program on Friday was most interesting and all physicians present acclaimed it as outstanding. Congratulations to Stephen N. Preston, M.D., and to the members of his Program Committee for completing such an outstanding scientific program.

The banquet on Friday evening was attended by 142 physicians and their wives. It was indeed a gala affair. The cuisine was as always excellent and the entertainment, superb. S. A. Cooney, M.D., on behalf of the Lewis and Clark County Medical Society, presented to Edward M. Gans, M.D., of Harlowton, the General Practitioner of the Year for 1956, an original painting by "Shorty" Shope, entitled the "Country Doctor." The painting was signed by all of the members of the Lewis and Clark County Medical Society.

The speaker of the evening, Howard A. Johnson of Butte, a former Chief Justice of the Montana Supreme Court, urged a "re-examination of government spending to stop trends which would destroy the American way of life." He pointed out that federal expenditures have risen 500 fold while the population has expanded only 35 times. Mr. Johnson said that the basic principle of this republic was to keep government "close to home" and he asked for "intensified efforts to return to that principle." Following the address of the principal speaker, guests at the banquet were entertained by several Carroll College students. Our thanks and appreciation to E. H. Lindstrom, M.D., and the members of his Local Arrangements Committee for completing such a fine program of entertainment at our Interim Session banquet.

### HIGHLIGHTS OF HOUSE ACTIONS

The House of Delegates at its meeting last Saturday acted upon the reports and recommendations of many of the standing and special

ROCKY MOUNTAIN MEDICAL JOURNAL

committees of your Association. It voted to adopt a recommendation of your Economic Committee, under the chairmanship of L. W. Brewer, M.D., to adopt a new Average Fee Schedule based upon the Relative Value Schedule published last year by the California Medical Association. The new Average Fee Schedule authorized by the House of Delegates will be similar to the schedule for the Medicare program but will include fees for medical and surgical procedures in the physician's office. Your Economic Committee and your Executive Office were authorized to proceed with the publication of this schedule after adjustment of the unit values for several procedures to conform with our present Average Fee Schedule. It is anticipated that the new schedule will be published and distributed to all physicians within the next six weeks.

A recommendation of the Executive Committee to amend the By-Laws to provide an associate membership classification for physicians in the employ of the Federal Government was adopted without dissent.

The House also adopted a resolution that the House of Delegates of the Montana Medical Association express its firm belief in the principle of "free choice of physician" as one of the inherent rights and liberties of any American citizen.

The House also approved resolutions encouraging individual physicians to promote the use of polio vaccine among their patients and to encourage Montana citizens to see their family physician for vaccination. The House adopted a resolution of the Reference Committee to encourage voluntary organizations that have been doing such excellent work in the field of rehabilitation and authorized the President of this Association to appoint members to represent the Association at a Conference on Rehabilitation to be held in Helena, April 8 and 9, at which a central organization will be formed to coordinate all governmental and voluntary rehabilitation organizations.

## Obituaries

### MARY E. MARTIN

Mary Elizabeth Martin, M.D. (Mrs. Frederic S. Marks), died in Billings on March 31 after a long illness. Dr. Martin was born in Salt Lake City, Utah, October 20, 1907. She received her B.A. degree from the University of Montana in 1933 and her M.D. degree from Northwestern University Medical School in 1940, after which she undertook postgraduate training in pathology. In 1947 she began the practice of her specialty in Billings. She was a member of this Association and the American Medical Association and was always very active in medical affairs.

### E. S. McMAHON

Edmund Stephen McMahon, M.D., of Butte, died Wednesday, March 27, at his home following (Continued on page 486)

for MAY, 1957

# ANNOUNCING

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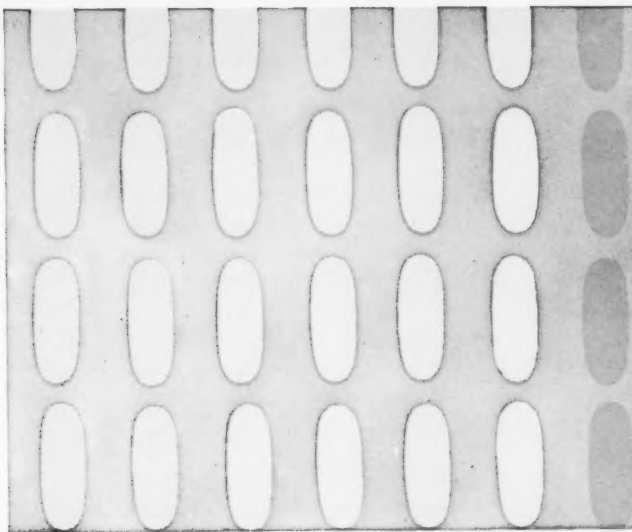
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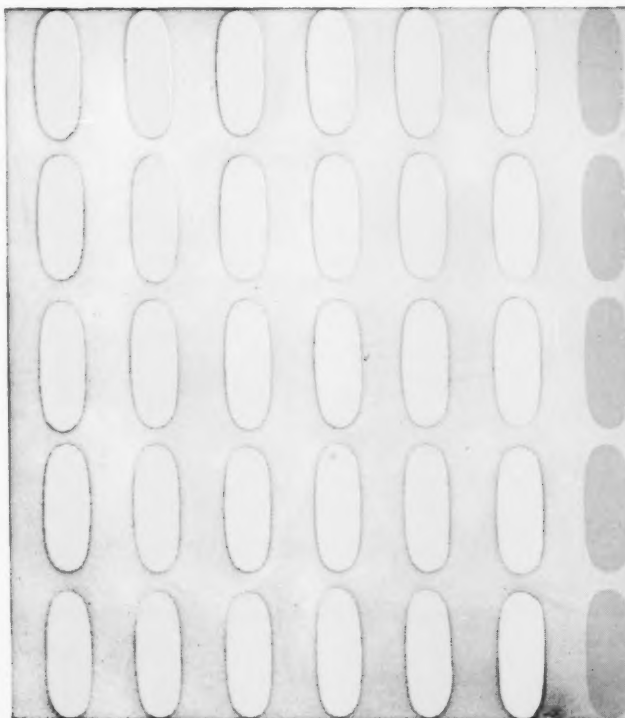
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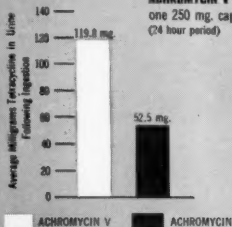
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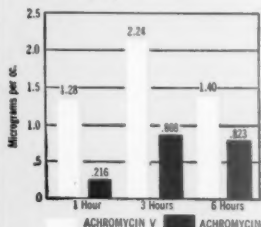
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(Continued from page 483)

ing an extended illness. Dr. McMahon was born in Butte, November 16, 1898. He received his M.D. degree in 1923 from Creighton University School of Medicine. After completion of his internship at St. James Hospital, Butte, he began the general practice of medicine and surgery in his home town. Dr. McMahon was President of the Silver Bow County Medical Society in 1932 and President of the Staff of St. James Hospital during 1940. He was a member of this Association and the American Medical Association.

*Utah*



#### **NATUROPATHIC BILL VETOED BY GOV. CLYDE**

Gov. George D. Clyde Friday vetoed one of the most controversial bills of the 1957 Legislature—S.B. 51—which would permit naturopaths to practice obstetrics and minor surgery.

He also vetoed a companion bill, S.B. 50, which would require applicants for licensing as naturopaths to designate the fields of practice they intend to follow.

"From an analysis of S.B. 50 submitted to me by the attorney general it would appear the bill as amended is of doubtful constitutionality," Gov. Clyde wrote.

"The amendment in question," he continued, "creates a monopoly type arrangement for those now licensed as naturopathic physicians which transgresses the 'equal protection of the laws' provision of the Constitution, and also comes within the prohibition against the Legislature enacting 'private or special' bills which grant some privilege, immunity or franchise to an individual or association."

The Governor pointed out that the question of the right of naturopaths to practice obstetrics and minor surgery and to administer narcotic drugs is now before the U. S. Supreme Court.

"It would appear unwise," he stated, "to legislate a matter now in litigation. Furthermore, licensed naturopathic physicians can by order of the Utah Supreme Court continue practicing until the U. S. Supreme Court reaches a decision in the matter."

He pointed out that the Utah Legislative Council has been asked by the Legislature to conduct a special study of the licensing of those practicing the healing art.

"It would appear wise to await the conclusion of this study before taking any legislative action on this subject," he said.

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## USMA BRIEFS

Dr. Basil C. MacLean of New York, President of the National Blue Cross Association, was the speaker at a luncheon March 22 at the Newhouse Hotel under the auspices of the Intermountain Hospital Service, Utah's Blue Cross plan. Hospital administrators, board members and representatives of business and industry were in attendance at the meeting.

Utah hospitals recently received \$427,950 as the second half of a grant originally made last December by the Ford Foundation to hospitals throughout the nation to help them improve and extend their services. The grants to individual Utah hospitals were: Utah Permanente, Draper, \$5,000; Fillmore Latter-Day Saints, Fillmore, \$5,000; Latter-Day Saints, Logan, \$20,500; Sanpete Latter-Day Saints, Mt. Pleasant, \$5,000; Cottonwood Maternity, Murray, \$6,500; St. Benedict's, Ogden, \$33,800; Thomas D. Dee Memorial, Ogden, \$52,900; Payson City Hospital, \$7,900; Utah Valley, Provo, \$30,750; Latter-Day Saints, Salt Lake City, \$109,900; Holy Cross, \$54,400; Primary Children's, \$16,250; St. Mark's, \$58,150; Shriners Hospital for Crippled Children, \$16,850; and Valley Hospital, Tremonton, \$5,000.

Nearly 300 of the University of Utah's dollar-a-year men—the practicing physicians who aid in the College of Medicine's teaching and patient

treatment program—were reappointed recently by the Board of Regents.

A modern \$125,000 South Davis Medical Center now under construction should be ready for occupancy in Bountiful some time in June. The new Center will accommodate a dozen physicians and dentists and a pharmacy. It will also include dental offices, x-ray laboratory, emergency and minor surgery facilities as well as a number of examining, consultation and waiting rooms.

Physicians and dentists now associated with the Center include Dr. Jay Jeppson and Dr. Reed W. Hartvigsen, dentists; Dr. Dewey C. MacKay, Dr. Lloyd R. Hicken and Dr. David H. Wray, general practice; Dr. Roger A. Brown, obstetrics and gynecology, and Dr. W. Dean Belnap, pediatrics.

\* \* \*

Dr. Robert D. Higginbotham, instructor in anatomy, University of Utah College of Medicine, is one of a dozen men in the United States to receive a Lederle Medical Faculty Award for research and teaching during a three-year period beginning July 1, 1957.

The award carries a grant of nearly \$14,000 to the College of Medicine to help pay for the work he does during the period. Dr. Higginbotham is doing outstanding research on the role of connective tissue in histamine detoxification.

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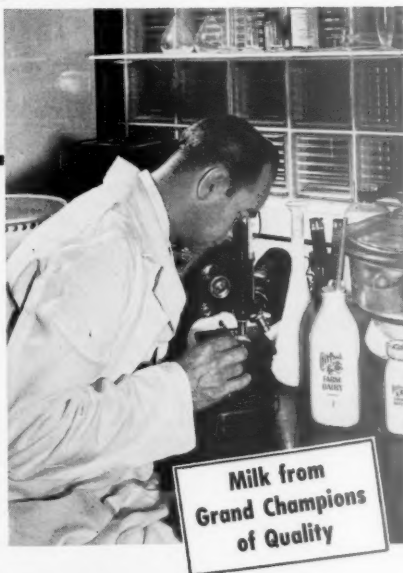
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for MAY, 1957



Dr. Higginbotham, who is 34 years old and a native of Utah, received his B.A. degree from the University of Utah in 1949, his M.A. in 1950 and a Ph.D. in bacteriology in 1955. He was first associated with the Department of Bacteriology, later with the Radiobiology Laboratory and more recently with the Department of Anatomy.

## Obituaries

### SAMUEL HARRIS MAJOR

Dr. Samuel H. Major, 39-year-old Nephi physician, died April 2 of complications from injuries suffered in an automobile accident.

He was born in Wales, Utah, and spent most of his life in Kanab, graduating from high school in that community. Dr. Major received his medical training at the University of Utah College of Medicine.

### FARLEY G. ESKELSON

Dr. Farley Gilbert Eskelson, prominent Vernal physician, surgeon and Utah educator, died in Vernal March 28 after a lingering illness.

Dr. Eskelson was a graduate of the Brigham Young University, Northwestern University in Chicago, and the University of Vienna, Austria.

He was principal in Emery Schools, Bingham Canyon High School and the Colonia Juarez Academy at Juarez, Mexico.

Dr. Eskelson served as President of the Basin Medical Society, Vice President of the Utah State Medical Association, and was a fellow of the American Medical Association. He was the owner and operator of the Uintah Basin Hospital from 1935 to 1942.

Survivors include his widow, two daughters, Mrs. Miriam Gray and Mrs. Sharon Gebhart, and two sons, O. Richard Eskelson, Orange, Calif., and Dr. Y. D. Eskelson, Salt Lake City, member of the Salt Lake County Medical Society.

### FRED E. STRAUP

Fred E. Straup, M.D., Bingham, Utah, civic figure and physician, died March 3, following a stroke.

In 1895 Dr. Straup graduated from Hahnemann Medical College in Chicago, Illinois, as a physician and surgeon. He served his internship at Cook County Hospital in Illinois. In 1896 he set up his office and began practice in Bingham. After serving as a physician and surgeon for several mining companies, he erected an office which was eventually replaced by the Bingham Canyon Hospital. For many years Dr. Straup served as head of the Bingham City Health Department.

Dr. Straup was a member of the Salt Lake County Medical Society, Utah State Medical Association and a member of the Association of American Physicians and Surgeons. He served as a member of the State Board of Medical Examiners for seventeen years.

After fifty-three years of service to the people of Bingham and surrounding area, Dr. Straup retired in 1948.

He is survived by his widow and one son.

### GEORGE LUCIEN SEARS

George Lucien Sears, M.D., Manti, Utah, physician and surgeon for over twenty-two years, died March 13, 1957, after a lingering illness.

Dr. Sears was a graduate of the University



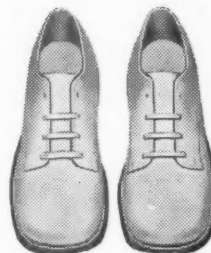
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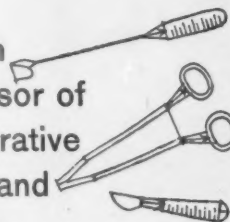
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# BULLETIN



FROM: COLORADO BLUE CROSS - BLUE SHIELD

In response to innumerable requests from physicians and hospital personnel that the restricted enrollment periods of BLUE CROSS and BLUE SHIELD be eliminated, the Boards of Trustees of Colorado Hospital Service and Colorado Medical Service have liberalized the regulations to permit OPEN ENROLLMENT OF NEW MEMBERS on a non-group individual basis AT ANY TIME DURING THE YEAR!

The new YEAR-ROUND OPEN ENROLLMENT policy will overcome the objection to the limited Community Enrollment periods by Colorado physicians and hospital personnel, who reported it was difficult to know how to advise a patient who wanted not only the best coverage available, but also IMMEDIATE MEMBERSHIP in COLORADO BLUE CROSS - BLUE SHIELD.

Hospitals and physicians are urged to continue to display BLUE CROSS and BLUE SHIELD informative pamphlets in waiting rooms. This enrollment material is of even greater interest to patients now that they can make application for the broad protection of BLUE CROSS and BLUE SHIELD at any time.

Our deepest appreciation to the participating physicians and hospital personnel who have endorsed BLUE CROSS and BLUE SHIELD . . . helping the plans grow to more than a half-million members.

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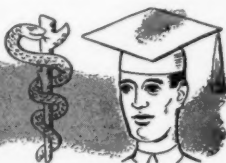
Director, Colorado  
Blue Shield

of Utah, attended the University of Nebraska Medical School and interned at Fairview Hospital, Minneapolis, Minnesota.

He was active in civic affairs, being a charter member and past president of the Manti Lions Club, past president of the Central Utah Medical Society, and a member of the Utah State Medical Association.

Dr. Sears was born in Manti, Utah, December 14, 1904, a son of Dr. George L. and Magnolia Hougaard Sears. He is survived by his widow, two daughters and one son.

## Medical School Notes



### POSTGRADUATE COURSE ON GASTROENTEROLOGY, DENVER, MAY 13, 14, 15, 1957

A three-day postgraduate course on Gastroenterology will be presented at the University of Colorado School of Medicine in Denver, May 13-15, 1957. The course will offer a broad and intensive review of present day concepts and pertinent recent developments in this field. The faculty will include twenty-eight nationally-known guest physicians who were selected for their authoritative knowledge of their respective subjects. This exceptional faculty is made possible by the co-sponsorship of the American Gastroenterological Association.

"The Peptic Ulcer Problem" will be the subject of a panel discussion on Tuesday evening at Phipps Auditorium in City Park with six outstanding guest speakers participating. This meeting will be open to all physicians.

In conjunction with the course, The Colorado Society of Internal Medicine will sponsor a dinner meeting at the Albany Hotel on Monday evening. The guest of honor and speaker will be Dr. Hermon Taylor of London, England, whose subject will be "The Present Status of Medicine in England."

For a detailed program contact: The Office of Postgraduate Medical Education, University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, Colorado.

### ANNUAL OTOLARYNGOLOGIC ASSEMBLY

The Department of Otolaryngology, University of Illinois College of Medicine, announces its Annual Assembly in Otolaryngology from September 30 through October 6, 1957. The Assembly will consist of an intensive series of lectures and panels concerning advancements in otolaryngology, and evening sessions devoted to surgical anatomy of the head and neck and histopathology of the ear, nose and throat.

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Interested physicians should write direct to the Department of Otolaryngology, 1853 West Polk Street, Chicago 12, Illinois.

#### TELEVISION TO JOIN MEDICAL MEETINGS ON TWO DIFFERENT CONTINENTS

Two of the world's great medical confraternities—the physicians of the United States and the United Kingdom—will be linked across the Atlantic via the new underseas cable on Wednesday, June 5. Thus, for the first time in history, two medical conventions on different continents will be in direct, two-way communication.

Arranged by Smith, Kline & French Laboratories, Philadelphia pharmaceutical manufacturers, the hook-up will join the American Medical Association, then in annual session in New York, and the Harvey Tercentenary Congress, convened in London to commemorate the 300th anniversary of the death of William Harvey, the English physiologist who first described the circulation of the blood.

Fittingly, doctors both in New York's Carnegie Hall and London's venerable Great Hall of the Royal College of Surgeons will discuss "The Results of Cardiac Surgery."

Invitations will be sent members of the medical profession to attend the Carnegie Hall portion of the meeting, which gets underway at 10:15 a.m. (EDT).

In New York, the participants will include Drs. Michael E. De Bakey, Baylor University, chairman of the American panel; Alfred Blalock, Johns Hopkins University; John H. Gibbon, Jr., Jefferson Medical College; Frank L. A. Gerbode, Stanford University, and George E. Burch, Tulane University.

In London, Sir Clement Price-Thomas of Westminster Hospital will head an international panel including Sir Russell Brock, Guy's Hospital, London; Professor G. d'Allaines, Paris, and Dr. Maurice Campbell, also of Guy's Hospital.

Immediately before the opening of the trans-Atlantic cable link, the New York panel will summarize for the AMA audience four papers which will have been presented by the London panelists.

With the opening of the link, the inter-continental roundtable will discuss, back and forth across the Atlantic for more than an hour, the findings of the Harvey participants.

In a cable to A. Dickson Wright, President of the Harvey Tercentenary Congress, Dr. George F. Lull, Secretary-General Manager of the AMA, wrote:

"THE CONTRIBUTION TO MEDICAL SCIENCE BY WILLIAM HARVEY IS RECOGNIZED BY MEDICAL MEN THROUGHOUT THE WORLD. THE FITTING TRIBUTE WHICH WILL BE PAID HIM IN LONDON ON THE 300TH ANNIVERSARY OF HIS DEATH IS OF GREAT INTEREST TO THIS ASSOCIATION. ACCORDINGLY,

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THE AMERICAN MEDICAL ASSOCIATION DESIRES, IF POSSIBLE, THAT A PORTION OF THE TERCENTENARY CONGRESS BE CARRIED BY TRANS-ATLANTIC CABLE TO ITS MEMBERS AT THEIR ANNUAL MEETING CONVENING IN NEW YORK JUNE 3-7."

Wright cabled in reply:

"THE ORGANISING COMMITTEE OF THE HARVEY TERCENTENARY CONGRESS IS HONOURED BY THE DESIRE OF THE AMERICAN MEDICAL ASSOCIATION TO PARTICIPATE IN THE COMMEMORATION OF WILLIAM HARVEY, AND THROUGH THE COURTESY OF SMITH, KLINE & FRENCH LABORATORIES THE SYMPOSIUM ON THE RESULTS OF CARDIAC SURGERY WILL BE CARRIED TO NEW YORK . . . THUS ESTABLISHING MEDICAL HISTORY AND THE WORLD-WIDE TRIBUTE TO WILLIAM HARVEY."

#### CALIFORNIA CAREER OPPORTUNITIES FOR PHYSICIANS AND PSYCHIATRISTS

Employment available as a result of interview only. Assignments in State hospitals, juvenile and adult correctional facilities, or a veterans home. Three salary groups: \$10,860-12,000; \$11,400-12,600; \$12,600-13,800. Salary increases being considered effective July 1957. Citizenship, possession of, or eligibility for California license required.

Write Medical Recruitment Unit, Box A, State Personnel Board, 802 Capitol Avenue, Sacramento 14, California



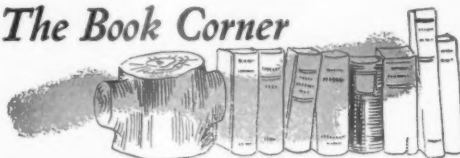
"I'm sorry, Men, — Captain Joey is confined to quarters."

Smith, Kline & French Laboratories noted that the trans-Atlantic hook-up is part of its program to foster the "person-to-person" relationship between doctors all over the world, urged last fall by President Eisenhower.

Coincidental with the trans-Atlantic conference, a crew of the SKF Medical Color Television Unit will be in Britain to provide closed-circuit medical television for doctors there. The five medical conventions to be televised—including portions of the Harvey Tercentenary Congress—will mark the first time the SKF unit, the only one of its kind, has visited the United Kingdom. The tour has the approval of the U. S. State Department.

SKF said the British schedule will not interfere with plans to televise surgical and clinical presentations at the State Medical Society of Wisconsin convention in Milwaukee, May 7-9; the American Medical Association meeting, or the Canadian Medical Association convention, June 17-20.

### The Book Corner



#### New Books Received

New books received are acknowledged in this section. From these, selections will be made for reviews in the interests of the readers. Books here listed will be available for lending from the Denver Medical Library soon after publication.

**Synopsis of Pathology:** By W. A. D. Anderson, 4th edition. St. Louis, C. V. Mosby Co., 1957. Price: \$8.75.

**The Clinical Management of Varicose Veins:** By D. W. Barrow. New York, Hoeber-Harper, 1957. Price: \$6.00.

**General Urology:** By D. R. Smith. Los Altos, Calif., Lange Medical Publications, 1957. Price: \$4.50.

**Current Therapy, 1957:** Edited by Howard F. Conn. Philadelphia, W. B. Saunders Co., 1957. Price: \$11.00.

**Dorland's Illustrated Medical Dictionary:** Edited by L. B. Arey, M.D., William Borrows, Ph.D., J. P. Greenhill, M.D., and R. M. Hewitt, M.D. 23rd edition. Philadelphia, W. B. Saunders Co., 1957. Price: \$12.50.

**The Practice of Medicine:** Edited by Jonathan Campbell Meakins, C.B.E., M.D., LL.D., D.Sc. 6th edition. St. Louis, C. V. Mosby Co., 1956. Price: \$16.00.

**Proceedings of the Third National Cancer Conference:** June 4-6, 1956. Phila., J. B. Lippincott Co., 1957. Price: \$9.00.

**Urological Surgery:** By Austin Ingram Dodson, M.D., F.A.C.P. 3rd edition. St. Louis, C. V. Mosby Co., 1956. Price: \$20.00.

**Clinical Laboratory Methods:** By W. E. Bray, B.A., M.D. 5th edition. St. Louis, C. V. Mosby Co., 1957. Price: \$9.75.

(Continued on Page 496)

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includes no charge for, loss which is caused by: war or any act of war or while in military or naval service of any country at war; suicide or attempted suicide; mental derangement or disorders; pregnancy, miscarriage or childbirth; travel outside the United States, Alaska, Hawaii, Mexico or Canada (unless otherwise extended by rider) or aeronautics or air travel other than limited commercial air line passenger travel.

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(Continued from Page 492)

**The Doctor As a Witness:** By John Evarts Tracy, Professor of Law, Emeritus, Phila., W. B. Saunders Co., 1957. Price: \$4.25.

**Physiologic Principles of Surgery:** By Leo M. Zim-merman, M.D., and Rachmiel Levine, M.D. Phila., W. B. Saunders Co., 1957. Price: \$15.00.

**Principles of Urology:** By Meredith F. Campbell, M.S., M.D., F.A.C.S. Phila., W. B. Saunders Co., 1957. Price: \$9.50.

**Expectant Motherhood:** By Nicholson J. Eastman, M.D. 3rd edition. Boston, Little, Brown & Co. 1957. Price: \$1.75.

## Book Reviews

**Sleep:** By Dr. Marie Stopes, N. Y., Philosophical Library, 1956. 154 pp. Price: \$3.00.

In the reviewer's opinion, the really helpful information in this book is hardly adequate to justify the publication of a 154-page volume.

Some of the author's ideas, such as the advisability of being cut off from electric currents of the earth with which humans should be in contact (p. 31), the importance of the head of the bed being north or south (p. 33), and the relationship of magnetic currents to sleep (p. 35) are surely not based on present-day scientific knowledge, but more on the author's theories and superstitions, which will only add undue concern and confusion for people already concerned about inability to sleep.

She seems to register undue alarm about such an innocuous problem as "Accursed Summer Time" (p. 73) and speaks a little unkindly of Willett, who evidently originated daylight time as being a "well-meaning ignoramus" (p. 74). The chapter on sleep in animals is interesting but worthless.

Reading in bed is criticized (p. 97) but it does work much better than sleeping pills for many people and if a person is just not going to sleep anyway, he might as well make good use of his time by reading in bed. It is, however, gratifying to read on page 99 that the author advises against sleeping drugs or hypnotics. The chapter on "Do's and Don'ts" will probably only give the sleepless person more reasons for concern.

In the reviewer's opinion the only helpful observation in the entire book is in paragraph 3 on page 126, where she states, "People in the old days who had a very simple faith could put their worries simply in prayer to their God, rest assured they would be dealt with, and confident of that, sleep in peace. The lack of this simple confidence in a personal God, concerned with even the smallest details of human affairs, is, I think, one of the great causes of sleeplessness today."

CHAUNCEY A. HAGER, M.D.

**The Care of the Expectant Mother:** By Josephine Barnes, M.A., D.M., M.R.C.P., F.R.C.S., F.R.C.O.G. (London). N. Y., Philosophical Library, 1957. 270 pp. Price: \$7.50.

This is a short but comprehensive book on antenatal care. It is certainly not designed for the obstetrician but obviously for the English general practitioner, medical student and midwife. It repeats many old ideas now practically discarded in American obstetrical thought and practice.

JOHN R. EVANS, M.D.

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## The Colorado State Medical Society

### Annual Session; September 24-27, Denver

#### OFFICERS—1956-1957

Terms of Officers and Committeemen expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** George R. Buck, Denver.  
**President-Elect:** Gatewood C. Milligan, Englewood.  
**Vice President:** C. Walter Metz, Denver.  
**Constitutional Secretary** (three years): James M. Perkins, Denver, 1957.  
**Treasurer** (three years): William C. Service, Colorado Springs, 1958.  
**Additional Trustees** (three years): Lawrence D. Buchanan, Wray, 1957; Ray G. Witham, Craig, (to fill vacancy) 1957; Terry J. Gromer, Denver, 1958; Bernard T. Daniels, Denver, 1959.  
 (The above nine officers compose the Board of Trustees of which Dr. Buck is Chairman and Dr. Metz is Vice Chairman for the 1956-1957 year.)

**Board of Councilors** (three years): District No. 1: Oszoode S. Philpott, Denver, 1957; District No. 2: Roger G. Howlett, Golden, 1959; District No. 3: Harry C. Bryan, Colorado Springs, 1958; District No. 4: Paul R. Hildebrand, Brush, 1957; District No. 5: John D. Gillaspie, Boulder, 1957, Vice Chairman; District No. 6: Harvey M. Tupper, Grand Junction, 1958; District No. 7: Charles L. Mason, Durango, 1958; District No. 8: Herman W. Roth, Chairman, Monte Vista, 1959; District No. 9: Scott A. Gale, Pueblo, 1959.

**Grievance Committee** (formerly the Board of Supervisors) (two years): Duane P. Harshorn, Chairman, Ft. Collins, 1957; Kenneth H. Beebe, Vice Chairman, Sterling, 1957; Freeman H. Longwell, Secretary, Denver, 1958; Lawrence W. Holden, Boulder, 1957; Robert C. Lewis, Jr., Glenwood Springs, 1957; James S. Orr, Fruita, 1957; Gordon H. Vandiver, La Junta, 1958; Robert H. Smith, Colorado Springs, 1958; George G. Balderston, Montrose, 1958; Ligon Price, Mt. Harris, 1958; Walter M. Boyd, Greeley, 1958; William N. Baker, Pueblo, 1957.

**Delegates to American Medical Association** (two calendar years): E. H. Munro, Grand Junction, 1957; (Alternate, Harlan E. McClure, Lamar, 1957); Kenneth C. Sawyer, Denver, 1958; (Alternate, Irvin E. Hendryson, Denver, 1958).

**Speaker, House of Delegates:** Carl W. Swartz, Pueblo; **Vice Speaker:** Frank B. McGlone, Denver.

**Foundation Advocate:** Walter W. King, Denver.  
**Executive Office Staff:** Mr. Harvey T. Sethman, Executive Secretary; Mrs. Geraldine A. Blackburn, Executive Assistant; Mr. John W. Pompeili, Executive Assistant; 835 Republic Building, Denver 2, Colorado; Telephone AComa 2-0547.

**General Counsel:** Mr. J. Peter Nordlund, Attorney-at-Law, Denver.

## The Wyoming State Medical Society

### Annual Session; June 16-19; Jackson Lake Lodge, Moran, in conjunction with the Rocky Mountain Medical Conference

#### OFFICERS—1956-1957

**President:** J. S. Hellewell, Evanston.  
**President-Elect:** H. E. Anderson, Casper.  
**Vice President:** L. Harmon Wilmoth, Lander.  
**Secretary:** Benjamin Gilitz, Thermopolis.  
**Treasurer:** C. D. Anton, Sheridan.  
**Delegate to A.M.A.:** A. T. Sudman, Green River.  
**Alternate Delegate, A.M.A.:** B. J. Sullivan, Laramie.  
**Executive Secretary:** Mr. Arthur B. Abbey, Cheyenne.  
**Councilors:** Frederick Haiger, 1959, Casper; Nels Vicklund, 1959, Thermopolis; Joseph Whalen, 1959, Evanston; Wm. Hinrichs, 1958, Douglas; Loran E. Morgan, 1958, Torrington; Francis A. Barrett, 1957, Cheyenne; Joseph E. Hoadley, 1957, Gillette; **Ex-Officio:** J. S. Hellewell, President-Chairman; Benjamin Gilitz, Secretary.

## Montana Medical Association

### Annual Meeting; September 19-21, Missoula

#### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated, the term is for one year only and expires at the 1957 Annual Session.

**President:** Edward S. Murphy, Missoula.  
**President-Elect:** John A. Layne, Great Falls.  
**Vice President:** Herbert T. Caraway, Billings.  
**Secretary-Treasurer:** Theodore R. Vye, Billings.  
**Assistant Secretary-Treasurer:** Park W. Willis, Jr., Hamilton.  
**Executive Committee:** Edward S. Murphy, Missoula, Chairman; John A. Layne, Great Falls; Herbert T. Caraway, Billings; Theodore R. Vye, Billings; Park W. Willis, Jr., Hamilton; George W. Setzer, Malta; John J. Malec, Anaconda.

**Executive Secretary:** Mr. L. R. Hegland, P. O. Box 1692, Office Telephone 9-2585, Billings.

**Delegate to American Medical Association:** Raymond F. Peterson, Butte; alternate, Paul J. Gans, Lewistown.

## The Utah State Medical Association

### Annual Session; September 5-7; Salt Lake City

#### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** James Z. Davis, M.D., Salt Lake.  
**President-Elect:** Reed W. Farnsworth, M.D., Cedar City.  
**Past President:** R. O. Porter, M.D., Logan.  
**Honorary President:** C. N. Ray, M.D., Salt Lake.  
**Secretary:** J. Poulsen Hunter, M.D., Salt Lake.  
**Executive Secretary:** Mr. Harold Bowman, Salt Lake.  
**Treasurer:** Alan P. MacFarlane, M.D., Salt Lake.  
**Councilor, Box Elder Medical Society:** J. H. Hasmussen, M.D., Brigham City.  
**Councilor, Cache Valley Medical Society:** C. C. Randall, M.D., Logan.  
**Councilor, Carbon County Medical Society:** L. H. Merrill, M.D., Hiawatha.  
**Councilor, Central Utah Medical Society:**  
**Councilor, Salt Lake County Medical Society:** James F. Orme, M.D., Salt Lake.  
**Councilor, Southern Utah Medical Society:**  
**Councilor, Uintah Basin Medical Society:** T. R. Sager, M.D., Vernal.  
**Councilor, Utah County Medical Society:**  
**Councilor, Weber County Medical Society:** L. B. McQuarrie, Ogden.  
**Delegate to the A.M.A., 1955-57:** George M. Flister, M.D., Ogden.  
**Alternate:** Elliot Snow, M.D., Salt Lake City.  
**Editor of the Utah Section of the Rocky Mountain Medical Journal:** R. P. Middleton, M.D., Salt Lake.

## New Mexico Medical Society

#### OFFICERS—1956-1957

Terms of Officers expire at the Annual Session in the year indicated. Where no year or term is indicated, the term is for one year only and expires at the 1957 Annual Session.

**President:** Stuart W. Adler, Albuquerque.  
**President-Elect:** Samuel R. Ziegler, Espanola.  
**Vice President:** James C. Sedgwick, Las Cruces.  
**Secretary-Treasurer:** Lewis M. Overton, Albuquerque.  
**Executive Secretary:** Mr. Ralph R. Marshall, 223-24 First National Bank Building, Albuquerque; telephone 2-2102.  
**Immediate Past President:** Earl L. Malone, Roswell.  
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**Delegate to American Medical Association** (two years): H. L. January, Albuquerque, 1958; Alternate: Earl L. Malone, Roswell, 1958.  
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# EDITORIALS

WITH this issue of the Journal we begin a new feature, a section called "AS YOU LIKE IT—A Medical Potpourri". Medical aphorisms are often historical, usually interesting, and always instructive. We have noted them in other medical journals, but have never previously had the resourcefulness and courage to start such a section for ourselves. The answer to our prayers has come from our southern neighbor state, New Mexico.

## "As You Like It"

The Scientific Editor for New Mexico is Dr. Aaron E. Margulis of Santa Fe. He has been instrumental in acquiring the contributions of Dr. Andrew M. Babey of Las Cruces, who obviously is a literator who peruses medical literature and plucks adages for his amusement and our enjoyment and education.

Regarding the title of our new section, let us quote Webster's pronunciation and definition of Potpourri. The preferred pronunciation is po-poor-re', and it means "mixture, as of spiced flower petals in a jar, used to scent a room." Isn't that just dandy—something we have always needed! Thus, this new feature bears a well-chosen title, and we await your comments to bolster another of the sections in this Journal, "Letters to the Editor."

D. W. M.

THE 11th Rocky Mountain Cancer Conference is to be held in Denver, headquarters at the Shirley Savoy Hotel, July 10-11. We hope for a good attendance and, specifically, for more

## Rocky Mountain Cancer Conference

Denver and Colorado colleagues to attend. It is noticeable that, in the past, over 60 per cent of the physicians attending have been from out of state. This does not speak well for the regional profession and its interest in cancer.

There are, perhaps, a few redeeming circumstances: Denver has some hot weather (but not too hot) in July; the place is swarming with tourists; lots of people, even physicians and especially the families, would rather be at a resort or a higher altitude; maybe we're tired of meetings after a busy winter; many of us are busy with children out of school and adults on vacation; mid-summer may be the best time for a vacation or simply to stay at home. Furthermore, we grant it is difficult to attend meetings faithfully in your own home town.

Nothing is apt to change the above facts. But we might suggest different dates, different and more attractive location, and there are perhaps other things that would attract the attendance which the Conference deserves. Voices should be equally heard and equitably distributed among colleagues and specialties grappling with cancer. Our profession has no greater challenge, and we owe progressive study and research to our patients!

THE art of diagnosis has come a long way. The five senses and a skillfully taken history will always constitute the backbone of a medical investigation but witness what

else has transpired since the beginning of medical history. An early milestone in the understanding of disease was the first post-mortem examination. The diagnosis was made in retrospect in that instance. Gradually, tests on the living body became possible with advances in our knowledge of chemistry, microscopy, and sterile technic. These tests helped determine the nature of the disease from which the patient was then suffering. Treatment could be logically instituted based on the disease found.

## The Crystal Ball

Now we seem to have reached the zenith of the diagnostic art. Now we can predict



diseases before they manifest themselves. Now, therefore, by *preventive* medicine we can in many cases save the patient from ever experiencing symptoms of his potential disease. The Rh factor tells us which mothers may have erythroblastotic babies. The blood uric acid tells us who are likely candidates for gout in later life. The serum cholesterol warns us of those most likely to have early myocardial infarctions. And most recently a blood test has been devised which predicts what was once considered purely a personality disease and now should perhaps be listed among the metabolic diseases, schizophrenia!

This test, the Akerfeldt test, named after its Swedish discoverer, takes but a few minutes to perform. To 1.5 cc. of a dye solution is added 1.5 cc. of serum. In schizophrenia the solution promptly starts to turn red, reaching a deep shade in six minutes. In normal blood serum there is no color change for four and a half minutes, then a much lighter red develops. The test is positive in 80 to 83 per cent of schizophrenics but is also positive in a number of conditions where there is increased oxidation in the plasma (such as in pregnancy, rheumatoid arthritis, carcinoma and hepatitis). The test sounds promising but like most others is not perfect so that widespread use must await further clinical trial. However, if this test, or one like it, is adopted as a screening aid for the differentiation of schizophrenia from non-psychotic patients then even the split personality may find itself nakedly revealed through the glass of the test-tube.

Now if we could just develop an inexpensive test for ferreting out those who don't intend to pay their bills . . .

**W**HEN neck stretching is indicated — medical neck stretching, that is — therapeutic failures may be noted unless a suggestion by Lt. Commander Benjamin L.

### Neck Stretching

Crue, Jr., is followed. In an article in the March issue of the Armed Forces Medical Journal, he notes that in those cases of cervical radiculitis due to narrowing of the interverte-

bral foramina, the usual type of head traction harness causes extension of the neck and frequently accentuates pain. If, on the other hand, the traction is so arranged as to keep the head in slight flexion, much better results are obtained.

The reason is mechanical. Although the foramina are in the anterior half of the cervical spine the fulcrum for flexion and extension is still further anterior. Therefore, extension of the neck narrows the foramina, increasing pain, whereas flexion of the neck opens up the foramina, relieving pain. The trick, then, is to obtain about 20 degrees of flexion when applying neck traction. This can be accomplished when traction is applied in the bed by raising the pulley from its usual position directly behind the head to a position 20 degrees above the head level. When traction is applied in a sitting position make sure that the chin strap is not so short as to forcibly extend the head and increase the pain. Besides, with the neck stretched and extended in that way, observers are likely to think you have taken to lynching your patients!

**T**HE World Health Organization recently warned that yellow fever is staging a comeback in the Western Hemisphere. The disease, forgotten or never seen by most of us,

flared up in Venezuela in 1946, hopped the Panama Canal to Costa Rica in 1951, Nicaragua in 1952,

Honduras in 1954, and Guatemala in 1955. Yellow fever travels about thirteen miles per month. Next stop Mexico and then the U.S.A. about 1958! The southern third of our country is still loaded with the potentially dangerous *Aedes aegypti* mosquito. And either an infected person or hide-away mosquito on a four-engined plane could drop the disease in our laps sooner than 1958. Here in the plains and mountains we can sit in fairly smug safety, but the mere fact that an ancient disease can flow like unhindered lava across our hemisphere despite our atomic age medicine is a grim eye opener.

# ARTICLES

## Therapy for Shock in Surgical Patients\*

John S. Lundy, M.D.  
ROCHESTER, MINNESOTA

*Here is an up-to-the-minute concept of management of shock—the perennial and often unexpected intruder. It is of interest to those concerned with care of the surgical patient, especially those in recovery rooms. There still is no substitute for whole blood but excellent results are described by alternating whole blood with dextran, which promotes passage of fluid from tissues into the blood stream to maintain volume. There are possible complications in patients recently treated with one of the steroid drugs. When this has been discontinued, the patient may go into irreversible shock and die due to adrenal cortical failure. The patient may be prepared prophylactically with cortisone preoperatively. Advantages of an indwelling needle in a vein after anesthesia are described; the physiology of vein collapse is stressed. Prevention and treatment of shock in patients in the sitting position under local anesthesia are described.*

IT IS possible for patients to be in a state of shock before, during or after surgery. When such a condition exists and the patient has lost blood, administration of blood is probably the most important measure in treatment. Blood is not always readily available because of the problems inherent in its storage. The maximal length of storage at present is three weeks.

The so-called "plasma-volume expanders" originally were called "blood substitutes," which was not an accurate designation. There is no substitute for blood if blood is needed, except in the sense that materials such as dextran and polyvinylpyrrolidone

(P.V.P.) may be substituted for part of the blood that otherwise might be needed. The best results are obtained by giving a bottle of blood, followed by a bottle of dextran, then a second bottle of blood and another bottle of dextran. Dextran efficiently promotes the passage of fluid from tissues into the blood stream, so that the volume of circulating fluid may be maintained. Its one disadvantage is that it is more expensive than P.V.P.

Vasopressor drugs may be used by direct infusion if solutions are not being given parenterally. If such fluids are being used, their effectiveness is greatly increased if the vasopressor agent is added to the solution being given by gradual intravenous drip. A drug such as levarterenol bitartrate (levophed) given in this way will support blood pressure even in formidable situa-

\*Read at the meeting of the Wyoming State Medical Society, Moran, Wyoming, June 29, 1956. From the Section of Anesthesiology, Mayo Clinic and Mayo Foundation. The Mayo Foundation, Rochester, Minnesota, is a part of the Graduate School of the University of Minnesota.

tions. The solution of levophed must not be allowed to escape from the vein, for this will almost certainly cause a slough. Many other drugs, such as ephedrine, have served the same purposes in the past.

A number of hazards have been created by the widespread use of cortisone and corticotropin (ACTH). One of the potentially serious situations develops when a patient has been treated for some time with either of these steroid drugs and then the administration is discontinued. For a considerable time thereafter, the patient may go into a state of irreversible shock and die during or after anesthesia and operation. The reason is adrenal cortical failure. Fortunately, lyophilized hydrocortisone now is available; 100 mg. of this material dissolved in 2 ml. of water may be given intravenously with great benefit. This may be necessary in addition to the standard methods of treating shock in order to make it possible for the patient to respond. If the patient's condition is so serious that response is not satisfactory, the administration of adrenocortical extract may be required.

Recently, I was consulted concerning a perineorrhaphy patient who had gone into pronounced shock. Administration of hydrocortisone had not produced satisfactory results so a parenteral infusion containing levophed had been given. This had maintained the blood pressure throughout the day but the blood pressure would decrease as soon as the infusion was discontinued. It was then learned that the patient previously had received a course of cortisone, the administration of which had been discontinued some time before the operation.

When we physicians have gained better knowledge of the use of hormones, it is likely that patients undergoing anesthesia and major operations will be prepared prophylactically with cortisone to provide the benefits of a temporary artificial increase in strength so that they may survive procedures which otherwise might be too much for them. Such prophylaxis for the patient who has not been taking cortisone should be somewhat similar to that given to the patient who is known to have had cortisone. In the latter instance, 100 mg. of

cortisone is given intramuscularly each day for two or three days before operation, on the day of operation and for a day or so after operation. I know of no reason not to use such a prophylactic regimen, since this temporary therapy cannot harm a patient, even if it is obvious that not every patient needs it.

When shock may be anticipated, it is important that an 18-gauge or even a 15-gauge needle should be inserted in a vein early, perhaps after anesthesia is induced and before the operation is started. If a needle containing a stylet is used, it is a simple matter for anyone to insert a drip connection into a bottle of parenteral solution and connect the tubing to the needle after the stylet has been withdrawn. This is an important step, especially when a minimal number of assistants are available.

In the management of patients who are already in shock or when the veins are in spasm, it is often possible to apply heat to the extremities and dilate the veins enough so that venipuncture can be accomplished. It is sometimes possible to dilate the veins of a single extremity by application of heat to that extremity only. However, all four extremities should be subjected to heat to produce maximal dilatation. An important point is to be sure to include the hand or the foot of the extremity in question. After heat has been used for a time, a tourniquet should be applied before the source of heat is removed. If an antiseptic such as alcohol is to be employed, it should be warmed, for the veins will go back into spasm if the heat is removed and a cold antiseptic agent is applied to the skin. After venipuncture has been done and the administration of fluids has begun, the flow may be slow at first; however, as the venous spasm begins to relax, the flow of the fluid will accelerate, which is a good sign that the state of shock is beginning to be relieved.

When the standard 6 per cent solution of dextran in an isotonic solution of sodium chloride is not available, one may utilize smaller bottles (50 ml.) of a 20 per cent salt-free solution. This material may be added to standard parenteral solutions in sufficient quantity to help increase the

volume of circulating blood. When a patient has become decerebrate, due to asphyxia or cardiac arrest, the use of a 20 per cent salt-free solution of dextran often causes excessive fluids to leave the damaged region; such treatment can be life-saving. In the past, such "decerebrate" patients have recovered after use of 100 ml. of concentrated serum albumin every four hours for five doses. However, concentrated serum albumin at \$1.00 a milliliter is extremely expensive for such use; the same results can be obtained by use of a 20 per cent salt-free solution of dextran at one-tenth the cost. In one instance, the stoma created during gastroenterostomy did not function because of local edema at the site; administration of a 20 per cent salt-free solution of dextran relieved the condition within twenty minutes.

When bleeding has persisted, one may be uncertain about how much fibrinogen has been lost or was present initially. Quantitative laboratory tests for the measurement of fibrinogen have been developed but they involve somewhat technical procedures and are not available to the majority of practitioners. Information obtained by such tests is of increasing value at present because the Red Cross now has made available concentrated solutions of fibrinogen for patients who need this fraction of blood.

Neurogenic shock, which occurs in patients who are to be operated on in the sitting position under local anesthesia, such as for tonsillectomy, submucous resection or the making of antral windows, is a common problem. This difficulty makes it almost impossible for the surgeon to perform the operation. The patient becomes

pale, moist and cold; the blood pressure decreases, and the patient usually is nauseated and often vomits. Much progress has been made on this problem since the days when an attempt was made to stimulate the patient by the inhalation of aromatic spirits of ammonia. This was followed by the use of epinephrine. Later, the availability of ephedrine was emphasized as a means of preventing a decrease in blood pressure during spinal anesthesia. Consequently, ephedrine has been used widely for many purposes and is generally effective in patients who are to sit up for operation. An intravenous dose of 25 mg. of ephedrine usually is given, and this may be repeated. The injection of 100 mg. of lyophilized hydrocortisone dissolved in 2 ml. of water also has been effective for such patients. It increases the patient's sense of well-being and increases the blood pressure. These two drugs have been given together with excellent results.

Because lyophilized preparations of hydrocortisone are relatively expensive, I have used wyamine as a less expensive way to treat these patients. While this agent is mild in its effect, it is a drug of choice to use on a patient with hypertension in whom shock has developed. It appeared that this drug possibly might be used in the prevention of shock. Consequently, I have injected 30 mg. of wyamine or Ritalin intramuscularly at the same time that preoperative medication is given to adult patients. The results have been encouraging. In a series of approximately 100 patients, few have shown signs of nausea and these patients have responded well to the intravenous administration of ephedrine.

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#### NEW "AMA IN ACTION" BOOKLET

An attractive new booklet describing "AMA in Action" as it moves ahead toward better medicine, better patient care, better distribution of medical services, better informed public, and better public health will be off the presses in June. This 44-page, illustrated pamphlet points out various AMA services for physician-members and the public and lists benefits to both the medical profession and the general public. Copies of "AMA in Action" will be sent to AMA officers, trustees and delegates, national

opinion leaders, medical schools, and pharmaceutical representatives. In addition, limited quantities will be made available to state and county medical societies for distribution to their key officials.

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The death rate from pneumonia, influenza and tuberculosis has dropped about 90 per cent since 1900 in the United States, Health Information Foundation reports. HIF attributes the improvement to medical advances, particularly new drugs, and to better living conditions.

# You Are the Sculptor

Henry C. Grabow, M.D.  
CANON CITY, COLORADO

*Addressed to the fathers and mothers among the readers, this article contains sound — and sobering — advice about our responsibilities to our children.*

THIS article is presented as one doctor's attempt to help children. It is focused on the cause of their troubles. Those who treat delinquent children, or those who wet the bed, by threats, punishment or pills, are treating the effect of their maladjustment, not the cause. Such treatment can sometimes teach a child to make an adjustment which is more acceptable to society, but it does little for his upset emotions. I would like to be able to pat myself on the back and say I have written something new. However, that is not the case. I am merely presenting old material in a slightly different light with great emphasis on the fact that the only thing wrong with children is their parents. By parents I mean the people next door, those down the street and those in the slum districts, but most important of all I mean *you and me*.

Children are bits of clay who are molded by their parents or people who rear them. Our children reflect our virtues and are burdened by our faults. Each must mold *himself* in order for his children to be healthy, happy and emotionally stable. We parents fail with our children not because the clay is faulty, but because the molds are faulty and we are the molds. We fully realize the offspring of our friends and neighbors are just like their parents. So are our own.

We like to tell of all the good things we do for our children. Those who do the most have better adjusted, happier children. It is amazing how many parents say they love their children yet rarely, or never, give them a tender caress, put their arms

around them, or hold them on their laps! We should listen to ourselves and many times would be ashamed to have on outside hear the way we talk to our offspring. If you do not believe me, make a tape recording for one or two hours in your home, then play it back and hear how you sound to your children. It is not the good things we do some or most of the time for our youngsters that makes nervous wrecks out of them; it is the wrong and selfish things we do.

Therefore, the main problem children have is we fathers and mothers who are raising them. Various authorities in the fields of psychiatry, psychology, sociology, social welfare and juvenile courts realize this. Innumerable authors state that children need a "good" home and a "happy, wholesome" family life. My article "Where Do You Fit In?"\* spelled out in careful detail what it takes for us to be happy and, therefore, good parents.

If your child, or mine, bites his fingernails, sucks his thumb, wets the bed, has nightmares, steals, lies, has stomach trouble, "chronic appendix" or is a delinquent, it is our fault. Occasionally some of these symptoms have an organic and anatomical cause. However, in too many instances they are manifestations of the same thing—emotional tension and conflict which arises in the home. We must understand that to tell a child to quit wetting his bed is the same as telling oneself to never have a migraine headache or ulcer again. It is like telling

\*"Where Do You Fit In?," Rocky Mt. Med. Journal, 52:27-35, Jan. 1955.



oneself to never be crabby and one's spouse to quit drinking. It is only after the cause is removed that migraine headaches will fail to recur and husbands and wives will stay sober.

The vast majority of us are well meaning. We want to be good to our children and make them happy. We feed and clothe them to the best of our ability. We send them to school and try to train and teach them to grow into worthwhile citizens of whom we can be proud. Nevertheless, when his mother brings Johnny to the office she wants *him* treated. She will readily accept the diagnosis of "nervous indigestion" or something similar, but she wants *him* to be given pills for it. She cannot and usually simply will not accept the idea that she is causing his nervousness, and therefore, if she will change he will not need any medicine. We parents want to help our children. Yet, too many of us remain blind to the thought that we must change ourselves to benefit them.

It fills me with helpless frustration to sit in my office and make dire predictions as to what will happen to a child, only to be unheeded by his parents and have my predictions come true. To me it is like being bound hand and foot while an infant is mistreated before my eyes. In recent months it was necessary to tell a woman she was emotionally unfit to be a parent; that unless she changed her ways, attitudes and emotional pattern, her children would be in trouble. Since then the delinquent status of two of them has become more than apparent. A third is in a reform school. Regardless of what happens to her there, whether good or bad, sooner or later she has to come home to the same environment that put her there in the first place! Do you blame me for feeling helpless?

Last year one of our daughters came home from school and told how one of her classmates had been spanked by their teacher. It seems that he was frequently in trouble of some sort at school. On questioning her further, we also learned something of his home life. The only times that boy was allowed in the house were to eat and sleep. The rest of the time he had to stay outside and shift for himself. If he wanted

a drink of water he had to use the water faucet on the outside of the house. Apparently, if it was good enough for the lawn, it was good enough for him too. Can enough laws be enacted and reform schools built to help a boy like that? As sure as night follows day he will break several of the former and chances are excellent that he will spend time in one or two of the latter.

Of the two parents, fathers are the worst offenders in my experience. They are more indifferent to the everyday wants and problems of their children; they feel that raising children is mainly the mother's duty and are more actively resentful in their refusal to accept the idea that they need treatment for their emotional problems as the best means of helping their children.

The most fundamental and unceasing urge that all of us has is to be wanted. Children must be wanted all day, every day, twenty-four hours of the day. They must constantly be assured they are wanted through love, affection and no rejection. It is not enough to assume that our children know we love them. We must demonstrate it to them by every word, gesture, and inflection of the voice. If we make it enough fun to be with us, our offspring will not want to be anywhere else. Then they will not loiter on the way home from school, or spend as much time as possible at the neighbors, or have to live in a dream world of comics, movies or TV. Unfortunately, too many children stay at home because they are trapped and cannot get away.

Any time we say "No" to our offspring we are rejecting them. Does it make us feel good to have someone refuse us? In doing so to a child we must ask ourselves: "Am I saying this for my benefit or for my child's?" If for the child's he must understand it that way. A child should not run into the street because, "You make a nervous wreck out of *me*," but because he might get hurt, crippled or killed. If "No" is for our benefit, we should not say it! When a parent asks me what he can do to help his family, I give these instructions: Analyze your every word, action and tone of voice. Then ask yourself, "Am I doing this for my own or for someone else's bene-

fit?" If it is not for the good of your wife, husband or child, do not do it, do not say it. If you do, you are looking out for yourself first, you are being selfish, and you are pushing them away. You are hurting them and they do not like it so respond accordingly. This doing everything for others must be carried out regardless of personal desires. Their response to your good deeds will take care of your needs and make all your efforts more than worth while.

Children are criticized constantly by their parents. We are sure we are just and that they need and deserve it. However, do we like to be criticized even when we deserve it? Does disapproval makes us feel good, or does it hurt our feelings? Does it not make us feel resentful and cause us to want to get even with our critic? What makes us ignore the fact that others have feelings just the same as we do?

In addition, criticism and constant correcting are the chief cause of inferiority complexes. This includes shaming or belittling or making fun of children. If a child is constantly picked on and corrected he becomes uncertain and feels insecure. Criticism is not only a form of *rejection*, but soon the poor child does not know which way to turn as everything he does is wrong. It is only a short step from there to the feeling that everyone is hypercritical of anything he does or says. We must understand that when we talk about ourselves, we talk of our successes and good points; when we talk of others, we point out their failures and bad points. Particularly in dealing with our family we must learn to be as tolerant of their failures and shortcomings as we are of our own.

Unfortunately, the majority of correcting is done not because any real harm is being done but because, "You're getting on my nerves," or, "If you get your clothes dirty, I have to wash them." Selfishly we think of *ourselves* first, and not of our children. All too frequently we expect our young ones to act like adults, but if they did, they would be abnormal. Naturally, children must be taught what is right and wrong, how to act and how not to act or talk. However, it must be for their benefit and not

for ours. The key (and difficulty) is to get them to *want* to do what is right. For this nothing is better than praise and approval, love and affection. Remember, we liked to be praised when we got 90 in arithmetic, not criticized because a problem was missed; we want approval when we are well dressed, not a scolding because our clothes cost a sum of money.

The old saying, "There is no use crying over spilt milk," is an excellent one. It should be applied constantly in family life. The last time a child spilled his milk, or broke a prized vase, did you stop to remember that whether you laughed and held your temper or if you spanked or scolded him, the result was the same? The milk was still spilled or the vase was still broken. The only difference was that in one case he was not upset while otherwise he was hurt, emotionally and all too often, physically.

"But," you say, "he should know better." In the first place, any normal child has many, many accidents. Secondly, what was your response the last time you broke a dish or had an accident with the family car? "That is different," you say? Why? Only because *you* did it and all of us are tolerant with ourselves.

Probably all parents have tried to get their young ones to work or behave by the offer of a reward, payments, or threats. Sometimes they succeed, sometimes not. Unfortunately, some children get so they refuse to do anything until they know exactly how much money they are to get. This, of course, can work both ways because fines can be levied as well as rewards paid. It is sometimes helpful to use this idea in a slightly different way both as a means of saying "No," and as a form of discipline. We can carefully explain to our children that in order to get anything we want ourselves, we have to be willing to pay for it. If we want a new hat or a new stove or a car, we can have any or all of them—if we are willing to pay for them. If it is a matter of choosing one or the other, we have to decide which we are most willing to pay for.

The same is true with them. They can play with housework or talk back any time

they care to—if they are willing to pay for it. The difference may not be great, but it helps them realize that a transgressor suffers the consequences of his own misdeeds. Another variation of this same theme is useful in curbing children's sometimes unending demands. Instead of a refusal when they want a train, bicycle, pony, car, skates, etc., on top of an already long list of toys, we can say: "Yes, you can have anything you want. All you have to do is earn and save the money to buy it." In our family, on the rare occasions when our children do save the money for such an item, their money goes into their bank accounts and my wife and I foot the bill for the actual purchase.

This maneuver serves several purposes. It saves rejection and most things lose their appeal and fall by the wayside. Lastly, it serves to teach them a little about the value of money. They begin to learn that we do not get money by some sort of magic, but that it takes time and effort to obtain and accumulate it.

Discipline or punishment of children is a very touchy problem. Sometimes it is invaluable, but by and large it is greatly overdone. Is your home run by a dictator? They tend to be arbitrary. They want their subjects to know they are the law. Their word is not to be questioned. Their punishment is swift, often brutal, and sometimes fatal. The feelings of others are ignored or frequently trampled.

Have you ever punished your child, then found that he was not given a fair trial, in fact no trial at all, and that actually he had done no wrong? Have you not found many times that you were wrong, but it was too late? Your child was already hurt emotionally and perhaps physically. There is no way of taking it back, much as you would like to. A home should not be a dictatorship. Each person should be treated fairly and *equally*.

Sometimes punishment is needed. When it is, it should be administered promptly and firmly. It should *never* be given because we have lost our temper. There are times when a child unconsciously seeks punishment. He seeks it to find out if we really care about him. He wants to know

if our apparent goodness is simply a lack of interest in his activities. It immediately establishes the fact that we are vitally interested in him and what he does.

Once punishment is given it should be ended and not carried out indefinitely. Once we have paid for a car, we do not want the dealer to come back daily, or at any time, and extract a little more money from us. We must not treat our children that way. It is harmful to over and over again remind them of their past mistakes. When they (and we) quit making mistakes, there will no longer be a need to put erasers on pencils.

No matter what wrong our children have done or what punishment they deserve, we should not make loss of our love part of the price they have to pay. Remember their successes are our successes and their failures are our failures. It softens the distress when we tell them, "I am sorry you did wrong. You know the price you have to pay, but remember I loved you before this happened, I love you now, and I will always love you." If we do that the offender will not be nearly so liable to end up in serious trouble. Do not be complacent, but let me again remind you that the child who sucks his thumb, wets the bed, has nightmares and other annoying but apparently innocent symptoms, is just half a step from delinquency. These, including delinquency, are symptoms of an emotional disturbance which is caused by parents—and not just one, but both of them, share and share alike.

Have you women ever asked you husband for a dollar? Do you men remember having asked your fathers for one? If it was given to you, you were pleased, were you not? If he gave you ten dollars without even being asked, that was really something! Then remember the times you asked for a dollar and got a dime, or nothing. Regardless of the reason, no matter how good it was, did it make you happy or were you disappointed?

The same is true of our children. They are just as human as we are. We must not make it necessary for them to beg before we will play ball with them, take them fishing, help them with their sewing or

mend their toys. Of most importance to children is not what we buy and the money we spend on them, but the interest we take in their activities and the time we spend with them. But, you say, you are too busy and do not have the time? How many fathers and mothers say exactly that, yet find time to go to meetings, play bridge, play golf and go fishing? Why? Because those are things *they* like to do. They are more interested in their own pleasures than those of their children. That means they are selfish.

All we need to do is keep in mind that our greatest happiness comes when we do something for others. Analysis of our best remembered moments will clearly show we pleased someone and *their* response made us happy. Doing for others is most pleasing when it is spontaneous and without reservation. It should not be done grudgingly or resentfully. The pleasure of a gift is the joy of the receiver. There is no joy if we throw our gifts in the dirt at his feet.

Many times parents cannot understand why their children never want to stay home and why their teen-age daughters start playing around or want to quit school and get married. Frequently, they have unknowingly been pushing their offspring out of their homes and into someone else's arms for years. Many are surprised, resentful and downright hateful when their children turn to others. Such reactions usually widen the gap as no one likes to be criticized or scolded even if he knows he is at fault.

Everyone needs to be wanted and hungry for love and affection. Any time a child comes to us with even the slightest injury, if we do not give him love and sympathy he will seek them elsewhere. If a toy needs fixing and we do not repair it the little owner will ask someone else for help. I know of a father of two sons. If their toys are broken nothing is done about them at home. However, the boys have learned that if they take such items to their father's workshop downtown, he repairs them immediately. If he does not, one of his workmen will do it instead. Unconsciously he realizes there is something wrong with that so he does the work himself before his men

get a chance to. He pushes them to someone else's doorstep, but manages to snatch them back before they get across the threshold.

Any time our children come to us with a problem and get the brushoff for any reason at all we are forcing them to turn to someone else. If children must turn elsewhere for understanding, interest, praise, approval, love, sympathy, help, or play, can we blame them if they roam the streets, loiter on the way home from school or if a daughter gets married (or worse) at fifteen or sixteen? In any home where criticism is free and understanding deficient, the children are burdened by emotional tensions and instability. Remember that if we make it more pleasurable and wholesome to be with us than to be anywhere else, or with anyone else, that is exactly where our children will be.

Teaching children to work requires the same basic ingredients as the prevention of behavior problems—love, affection, patience, tolerance, praise and no criticism. Girls should learn to wash dishes and cook because some day they will need the knowledge to be housekeepers; not because, "I'm tired and you ought to do some of the work around here." Boys should be taught to work because they will sometimes need the ability as the breadwinner of a family; not because, "I don't want a lazy good-for-nothing sponging off me all his life."

The tasks of children should be for *their* benefit and training. They should know it and have that idea constantly brought to mind rather than have the feeling they are serving our convenience. Unfortunately, children are usually forced to do tasks because if they do not perform them, we will have to and we are tired and overworked so it is about time for them to give us some help.

There is no harm in children relieving the work load of their parents. However, where they do, it should be for their training or because we are so nice they want to do something to please us. It should not be because we will punish them if they do not.

It is no fun working alone. Anyone resents working while others are playing. Whenever possible we must work with our children. We can help them to do the dishes

or pick up their clothes, then let them help us with our tasks. We should not send them to one end of the house while we shout at them from the other.

The physical aspects of any job are exactly the same whether we have fun doing it, whether we gripe, are angry, or are indifferent. In any case, the energy expended will be the same, but whether or not we enjoy ourselves will depend entirely on our mood. The difference is emotional. Therefore, in working with children be pleasant and joyful, not angry, scolding and critical. The former makes work fun, the latter makes all concerned unhappy.

We should do everything possible to make children *want* to work. Praise is one of the prime ingredients in this effort, never criticism. If we make pleasing us enough fun they will work to do it. Children are happiest with love and affection not money or toys. We should not forget that we never tire of praise and admiration of our successes. We do not like to be reminded of our failures. We must praise and admire our children's accomplishments, not hurt them with criticism, scolding, ridicule, or indifference. Too many of us accept our children's successes as no more than should be expected and seem to only see their shortcomings. Children with such parents do not want to work for them. Instead, they instinctively try to get even. Children are just as human as we, their parents. If someone kicks us in the shins, we want to kick them or do something else to pay them back. So do our youngsters.

With children as in adults, there is the age old problem of sex. It is imperative that we understand our sex drive is an instinct which is the result of internal secretions called hormones. Our sex drive can be, and is modified by training, but it can no more be stopped than we can tell our pancreas to stop producing insulin and expect it to do so.

We may shame a child into not showing any overt interest in sex, but his hormones keep right on working. It is impossible to suppress them so eventually their influence pops out on the surface. The result may be a normal one, but it can readily be seen why it may be in the form of abnormal

or bizarre reactions. It is beyond comprehending how many lives have been ruined by a parent's well-meaning but improper reaction to the normal sex curiosity of childhood.

Proper sex education should not be in the form of suppression, but of guiding the sex instinct along proper channels. A problem is never solved by avoiding it. Children should be taught this with regard to all phases of life. We must keep it in mind in the sex training of children. I think that a child's questions dealing with sex should be answered honestly and frankly in a manner which they understand. Their curiosity should not be avoided, shamed or suppressed. However, what and how much they are taught should correspond to their age and development. After all, in learning to read a first grader is started out with simple words and sentences, not with Plato or the Encyclopedia Britannica.

Some parents seem to think they are giving their children a sex education by moving freely about the house naked regardless of sexes. I have seen no harm from this practice, but neither do I see much benefit in it. A rule which is most helpful in sex education is that there is a time and a place for everything. At the proper time and place there is absolutely nothing naughty or dirty about sex in all of its aspects. Instead it is normal and can be extremely pleasurable. The same is true of the normal functions of emptying the bowel or bladder—at the proper time and in the proper place.

Therefore, we cannot solve one of life's major problems by avoiding it. We must face sex as a normal function in a normal manner with honesty and intelligence. If we do not, a neighbor boy or girl, "friend," or relative will teach our children for us. We can then rest assured that when they have finished, a child's sex knowledge will be both dirty and shameful and something that should be hidden.

In this discussion, I have talked about "we" and "you." That is exactly how it is meant. If we do not apply these ideas to ourselves they are without value. We can talk all day about what terrible parents our neighbors are. Every word we say may be



true, too, but it does not keep our children from wetting the bed, having nightmares, or getting married at 14 or 15. One can talk about his wife's faults for an hour, but that will not help him in the least and vice versa. Each of us has just as many faults as our wife or husband. Our spouses and children will improve only in response to *our* improvement, not in response to our criticism, scolding, or advice.

Also, please, please do not brag about how nothing is wrong in your family because you never have arguments and your children do not roam the streets at night. In the first place, *every* family has emotional troubles. The more self-centered and selfish the parents, the greater are their emotional problems and the less their insight or ability to see their faults. The more nervous parents are, the greater are family emotional disturbances.

Unfortunately, even if everyone who reads this paper believes every word and tries to apply it to the letter, the help it will give his children is limited. Why? Because we cannot awaken in the morning in an ugly mood and say, "I'm going to be happy as lark today." Happiness does not come that way. It comes from pleasing others. In the family it comes from father

doing everything possible to please his wife; not some of the time, but *all* of the time. It comes from mother doing everything possible to please her husband *all* of the time. The happiest time you or I have ever had, has been in response to doing something for someone else. It is only happy parents who can apply these principles in the training of their children. It is only happy parents who have happy, well adjusted children.

In conclusion, may I repeat that the basis of happiness is love and affection with no criticism, shame or ridicule. "Do unto others as you would have others do unto you," and remember that it must start with those of us who are parents because we find happiness and contentment by pleasing others.

Lastly, we must not be blind to the effect of our nerves and discontent on our children. We must face up to our emotional problems and solve them by helping others. This is true not only in big things but in every smallest detail of family life. Too many of us are very polite to friends and strangers, but indifferent to the feelings of those nearest and dearest to us. Our children are bits of clay. We fathers and mothers are the sculptors. They are cast in our image. If they are nervous and have behavior problems we must not fail them.

## The Worried Parent\*

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WORRY sometimes seems to be the expected lot of parents. Though there are many joys in parenthood, it often appears to the parent—and to the physician who carries the responsibility for sharing troubles—that worries are almost inevitable companions of the joys. Whether the concern is about matters of health, or about possible abnormalities in development, or

about bizarre behavior patterns, or about some of the other areas in which things can go wrong, the physician, in addition to the technical skill he must bring to bear on the problem, must possess the tactful ability to reassure and to remove from the situation at least the unrealistic aspects of the parent's worry. The physician's first effort, therefore, must be to deal with these *unrealistic* aspects. Some may stem from the parents' awareness that their own early potentials have not been completely real-

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ized and their desires that their children shall not suffer from the parents' deficiencies.

This is obviously only part of the problem, for parents have not only regrets that their expectations for themselves have not been reached; they have also certain expectations for their children and feelings about those children which arise from sources not related to an immediate difficulty. Some of these have to do with the special position of the child in the family—the first son, the only son or daughter, and so on—or with family pressures or with side-events which make the appearance of one particular child specially welcome or unwelcome. The over-concern about the child who is particularly "valuable" is understandable enough; the parents may be completely unaware that similar over-concern can arise from disappointment over the child's sex or appearance or the uncomfortable time of his arrival. The physician should not feel it mandatory to bring these possibilities to the attention of the parents at the time when they are worried, but he should be aware of the possibilities in order to understand the reason for the unrealistic over-concern which the parents may exhibit.

The role of the physician is most clear-cut when the worries center around the physical illness of the child. Realistic worry can often be diminished—in both the child and the parents—by the physician's seeing to it that an adequate explanation of the illness and its symptoms is provided in understandable language. In spite of the plethora of medical and pseudo-medical information supplied to the general public in the newspapers and magazines, people remain almost incredibly naive about many medical matters. Since they tolerate realistic fears better than the nightmares of formless terrors, the physician should make the illness as matter-of-fact as possible.

Unrealistic worries or over-concerns about physical illness can also be lessened by the physician. Some of these are iatrogenic, partially engendered by imperfect understanding of the physician's explanations. Others may come from unrecognized or denied hostility toward the child, usually

expressed in statements indicating that the parent feels actually responsible for the child's illness or at least feels that he could, in some mysterious way, have prevented it. Whenever they are applicable, statements from the physician which reduce the parents' responsibility to a realistic level may do a great deal toward alleviating the guilt expressed as "What have I done wrong?"

Many parents are worried about the physical and mental development of the child. There is in some cases confusion as to the "normal" developmental stage at any given time, and this may be aggravated if there is competition with other children in the family. The precocious child is frequently a source of real embarrassment to his "normal," if less speedy cousins.

Parental pride may tend to place the child's development against an unrealistic yardstick. On the one hand, the parent's own unfulfilled ambitions may cause him to over-estimate the child's abilities and interests in certain directions; on the other, the painful facts of actual retardation in development may be intolerable to the parent whose pride demands perfection in his offspring. If this denial of pathology results in failure to provide the child with the proper treatment or training, the physician has the responsibility of gently and supportively encouraging the parents to subordinate their own hurt feelings to the child's welfare.

In the area of behavior parental worries may be especially troublesome. Perhaps mental health education has unwittingly made some parents self-conscious about their relationships with their children, and has made them fearful that their own activities may contribute to the development of future neuroses in their offspring. In some instances this is certainly a realistic danger; in most, the attitude can lead to unwarranted worry. And, in any case, the general recognition that early behavior patterns may be prodromal symptoms of future difficulties does not reduce the worry of the parent already struggling with the complications of modern living, attempting to strike a proper balance between freedom and discipline and working out a cooperative relationship in which the home and

the school will contribute constructively to the child's later health.

If the parents can be helped to understand the wide variations possible in "normal" behavior—though even day-by-day youthful exuberance is not always easy to tolerate—(Fig. 1) the physician may be

able to add an objective point of view which prevents parents' taking a situation too seriously. Even potentially catastrophic events can be leavened by dignity, realistic appraisal and a sense of humor (Fig. 2).

Humor itself can introduce difficulties. It may seem peculiar to the child that the



"HE'S JUST A NORMAL HEALTHY BOY HE'S JUST A NORMAL, HEALTHY BOY. HE'S JUST A NORMAL . . ."

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Fig. 1



"WHEN I CALLED DADDY 'FATSO' YOU THOUGHT IT WAS FUNNY!"

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Fig. 3



"BE SURE AND WRITE TO US WHEN YOU LEARN HOW."

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Fig. 2



"I TOLD HIM TO PICK UP HIS TOYS, AND HE TOLD ME TO GO POUR MILK ON MY ULCER."

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Fig. 4

timing of a joke is as important as the content (Fig. 3). And, while physical awkwardness is regarded with amused tolerance and the child should be gently encouraged to try tasks beyond his physical abilities, analogous attempts at being conversationally grown-up can be misunderstood (Fig. 4).



"DON'T SHOUT AT ME! I'M NOT YOUR HUSBAND!"

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Fig. 5



"I KNOW THE DOCTOR DID THAT TO YOU.... BUT THE DOCTOR HAD A RUBBER HAMMER!"

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Fig. 6

Some behavior patterns are simply imitative and parents may not be aware that the child is uncritically putting experiences and observations together as best he can (Fig. 5). One of our patients, for example, exhibited an extreme disinclination to talk in spite of normal ability to form words. Her trouble apparently stemmed from the fact that her family was unusually taciturn—a visiting social worker estimated that 25-30 words would encompass a normal day's intercommunication—and she simply had no occasion to talk. Even when there is ample opportunity for mimicry, the child's imperfect understanding or incomplete copying may cause trouble (Fig. 6).



"WHY DON'T YOU TRY COOPERATING WITH ME FOR A CHANGE?"

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Fig. 7

Many parents must, at times, recall wistfully the days when "children were seen and not heard," but even today's trend toward permissiveness does not always mean that the child's point of view is invariably allowed expression (Fig. 7). Furthermore, pleasant as it would be to have the child's behavior change to match the parents' immediate needs, these demanded changes can be confusing (Fig. 8).

Whether or not the parents can maintain a realistic approach, there is little question that the child's matter-of-factness can be

breath-taking (Fig. 9). The child is quick to see the advantages (to him) of a realistic approach. Though usually stoutly maintaining his scorn of "being a baby," he may retreat precipitously to this status when it promises some advantage (Fig. 10). Or he

may, unpredictably, apply a "grown-up" meaning to casual phrases and introduce devastating logic into parental double-talk (Fig. 11).

Early sexual behavior in the child is dis-



"YOU'RE ALWAYS TELLING ME I'M TOO LITTLE TO DO THINGS. SO NOW COME I'M A 'BIG BOY' ALL OF A SUDDEN?"

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Fig. 8



"I AM NOT A BIG BRAVE MAN! I'M FIVE YEARS OLD AND I'LL SCREAM BLOODY MURDER IF YOU HURT ME!"

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Fig. 10



"Hi, MOM! IS THAT DAD?"

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Fig. 9



"WHY DO YOU CALL IT *MY* BEDROOM IF I CAN'T EVEN LOCK THE DOOR?"

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Fig. 11



turbing to parents, especially if they read into it their own memories of doubt, dismay and guilt. Here, as in other dealings with behavior, matter-of-factness may offer the

safest and healthiest approach. Fortunately, the children themselves are likely to be quite casual about such matters (Fig. 12).

In the "family romance," either parent may feel like an interloper (Fig. 13), as the child attempts to work out the complicated relationships involved in differentiating boy from girl, man from woman, and child from adult. In these situations, it is scarcely surprising that the baffled parent sometimes turns to other areas where authority cannot be questioned, even though these have nothing to do with the case at issue (Fig. 14).



"GEE, YOU'RE LOTS OF FUN! ARE YOU SURE YOU'RE A GIRL?"

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Fig. 12



"DADDY, HOW LONG HAVE YOU BEEN WITH US?"

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Fig. 13



"I LIVE HERE. THAT'S WHY I'M IN THESE PARTS! AND QUIT CALLING ME STRANGER! AND EAT!"

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Fig. 14

These are merely superficial illustrations of a few of the many behavior patterns the parent must try to understand. As presented here, they would give little occasion for worry, but when they occur repeatedly or in situations where they are less amusing, they may be real causes for parental concern. It is precisely in these instances that the physician's sophistication and tolerance can provide the parents with relief from their worries.

#### HEALTH NOTES—

Forty years ago, according to Health Information Foundation, one in every ten babies born

alive in this country was unable to survive the first year of life. Today the ratio has dropped to one in forty.

# The Meaning and Measurement of Intelligence

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*Intelligence tests and evaluation of the I.Q. are important in educational projects. They are becoming more helpful and exact for industry and the Armed Forces, as well as for education.*

**B**ECAUSE intelligence is related to so many aspects of an individual's behavior, the physician in general practice is likely to be asked many questions by his patients which in one way or another have to do with intelligence.

For example, "What is intelligence, anyway?"; "What does an I.Q. of 130 mean?"; "My child got a low score on a group I.Q. test at school. Does this necessarily mean that he is dumb?"; "What is the difference between mental deficiency and insanity?"; "Are very bright children usually abnormal in some way?"; "Can the I.Q. be raised by any kind of drug?"; "Can an infant's intelligence be measured?"; "Can you tell whether a six-year-old child has enough brains to go to college when he grows up?" The reader can think of numerous additions to this list.

The aim of the present writer is to summarize briefly some of the things which have been learned about intelligence and its measurement. A clearer understanding of these basic facts should make it easier to cope with questions like the above when they are raised by patients or, in the case of children, by their parents.

## The Nature of Intelligence

First of all, what is intelligence? The serious investigator who attempts to find

an answer to this question is apt to become quite perplexed. He is likely to conclude from the variety of definitions he encounters that the only people who are confused about what intelligence is are psychologists. The layman doesn't seem bothered. He seems satisfied that he understands the meaning of the term when he says in everyday conversation, "He is not very bright," or "Any normally intelligent person can see . . .", and so on. It is not possible to go into all of the technical complexities of such things as two-factor and multi-factor theories of intelligence in the present discussion. But it should be feasible to cut through some of these complexities, and still arrive at some meaningful statements about the nature of intelligence.

In the first place, intelligence is not a thing in any tangible sense. We cannot see it, touch it, or hear it. It is purely a hypothetical construct, a scientific fiction, like the concept of force in physics. We invent it because it helps us to explain and predict behavior. That is the first fact to be grasped in attempting to understand the word *intelligence*; namely, that it is a hypothetical attribute of the individual. The second fact to be grasped is that this hypothetical attribute is assumed to vary in amount from one individual to another. In other words, we assume that it makes sense to say that one individual has more intelligence than another.

However, if we are willing to make these

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two assumptions, we are still left with a question of what we should consider real life examples of this hypothetical characteristic, intelligence. Various psychologists have had different ideas about this. For example, Terman, the great pioneer of mental testing and developer of the Stanford-Binet Intelligence Test for children,<sup>8</sup> chose to define intelligence as an individual's ability to carry out abstract thinking, to use abstract symbols in the solution of all kinds of problems.

On the other hand, Wechsler, inventor of the equally famous Wechsler-Bellevue Intelligence Scale<sup>10</sup> and its current successor, the Wechsler Adult Intelligence Scale,<sup>11</sup> prefers to define intelligence as "the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment."

As can easily be seen, Wechsler's definition is considerably broader than Terman's. Other psychologists have definitions which vary between the two. Before the reader gives up in disgust, however, in the face of these varying statements, let us try to bring the discussion down to a practical level by citing one more definition of intelligence which has been proposed by some psychologists—namely, that intelligence is what intelligence tests measure. Though it is perfectly obvious that all psychologists have conceptions more or less like those expressed above somewhere in the backs of their minds when they sit down to devise an intelligence test, it is not necessary for us always to agree with, or even for that matter to know, a particular psychologist's definition of intelligence in order to apply his tests meaningfully.

For example, if a psychologist chooses to view intelligence as primarily a matter of abstract verbal reasoning, and devises a test to measure this, all well and good. If we happen to be interested in how people differ in their ability to do abstract reasoning, we can use this test profitably. Or, if we are interested in predicting something like arithmetic success in school and it is known from previous studies that people who do well in this abstract reasoning test are likely to do well in arithmetic, the test becomes useful for this purpose also.

Actually, in clinical practice we are most likely to be interested in predicting the over-all ability of people to succeed in a wide variety of life situations—to do well in school, to make reasonably sensible decisions in the conduct of daily life, to learn technical jobs easily, to remember what they have learned, to concentrate on what they are doing, to be able to see the forest for the trees in dealing with social situations. We want to get a rough idea of whether they are much better, better, about the same, worse, or hopelessly worse than most other people in this wide range of activities. For this reason, we most frequently use tests of so-called *general* intelligence, tests that gives us over-all estimates, expressed as an I.Q. score, of a person's general ability to deal with the demands of his environment. Most of the widely used individual intelligence tests are of this sort.

#### Intelligence Test Construction

Although the actual technics involved in constructing an I.Q. test are quite complex, the principle is simple. Guided by his conception of intelligence, the test-maker chooses a number of items which he thinks are related to this characteristic. For example, in constructing the Wechsler Adult Intelligence Scale, Wechsler picked a number of general information questions, such as "How many weeks are there in a year?" or "What does rubber come from?"; a series of numbers designed to test for immediate memory; vocabulary words; visual-motor tests, such as copying designs with colored blocks, putting objects together correctly, and so on; and questions presumably relating to judgment in everyday situations, such as "If you were lost in the woods in the daytime, how would you go about finding your way out?"

Once the test-maker has chosen a large number of items for possible use, he is ready to begin construction of his test. It must be remembered that answers on the Wechsler or any other intelligence test are not in themselves evidence of intelligence. The teacher who requests an intelligence test on a pupil is not interested *per se* in whether he can put a manikin together, assemble blocks, or tell you how many weeks

there are in a year. What the teacher is interested in is what the pupil's performance on these items will tell us about his ability to do school work, to learn a job, to handle the problems of daily living—in other words, what it tells us about generally intelligent behavior.

This means that in order to produce a useful test, it is necessary to *validate* the items which have been selected; that is, we must find out whether or not the items which we think are related to intelligent behavior actually are.

**Standardization and Validation:** Two steps are involved in the standardization and validation of a test like the Wechsler.

The first step is to take the items which have been selected and to give them to a representative sample of the United States population. For example, one of the author's assistants recently was busy doing a "Galup poll" among Colorado residents in an effort to help standardize nationwide a new intelligence test for children. The items are then arranged in order of difficulty. For example, within each of the subtests on the Wechsler, such as information questions or general comprehension questions, the items passed by almost all subjects are listed first, the items passed by almost none listed last. Items which everybody passed or failed would, of course, be no help and consequently would be thrown out, as would ambiguous or poorly worded questions. The assumption here, of course, is that the more items a person passes the higher his intelligence should be. I.Q. scores are then ob-

tained by comparing the individual with other persons of his own age group.

It is not necessary here to go into the rather complicated statistics involved, except to say that an I.Q. of 69 and below, classifiable as mental deficiency, would include the bottom 2.2 per cent of the population, an I.Q. 70 to 79, classifiable as borderline, would include the next lowest 6.7 per cent of the population, and so on (see Table 1).

Comparison with the Stanford-Binet: This procedure differs somewhat from that used in the Stanford-Binet children's intelligence test, where the I.Q. is obtained, as the reader is probably already aware, by dividing the person's mental age by his chronological age and multiplying the remainder by 100. In other words, on the Binet if a person performs like the average 10 year old on the test, and is actually 10 years old, his I.Q. will be 100. If he is actually 15, however, his I.Q. will be 10 over 15 times 100, or 67. Despite the differences in computation, however, the end result is roughly the same; that is, this child and a child who gets an I.Q. of 67 on the Wechsler will both be in the bottom 2.2 per cent of the U. S. population in terms of test performance. Table 1 shows the actual equivalents of Wechsler and Stanford-Binet I.Q.'s in terms of percentile limits.

**Reliability and Validity:** Standardization of the Wechsler makes it possible to order people along the scale of performance from the zero percentile to the 100 percentile. But is this performance scale related

**TABLE 1.**  
**Intelligence Classifications and Percentile Equivalents of Wechsler and Stanford-Binet I.Q.'s**

P.E.	Included Per cent	Classification	WAIS	Stanford-Binet	
				8-12 (Ages)	14-18
-3 &	2.2	Ment. Defect.	69-below	70-below	68-below
-2 to -3	6.7	Borderline	79-70	79-71	79-69
-1 to -2	16.1	Dull Normal	89-80	91-80	91-81
1 to -1	50.0	Average	109-90	115-92	115-92
+1 to +2	16.1	High Average to Superior	119-110	125-116	126-116
+2 to +3	6.7	Superior	129-120	137-126	136-127
+3 &	2.2	Very Superior	130-over	138-over	137-over

to, that is, correlated with intelligence? The only way of determining this is by investigating the reliability and validity of the measure.

By reliability is meant the extent to which a test measures anything at all. A faulty ammeter measures nothing consistently, neither amperes nor anything else. Naturally an unreliable measuring instrument, whether it is an ammeter or an intelligence test, can never be valid. The reliability of the Wechsler has actually been determined in a number of ways, among them by giving this test over and over again to the same people over varying periods of time. Such re-tests have yielded reliability coefficients in the neighborhood of .94 on a scale from zero (which means completely unreliable) to 1.00 (which means completely reliable, or in other words exactly the same).

Once it has been decided that the measuring instrument is at least consistently measuring something, it is then possible to go ahead and check its validity, i.e., see if it is measuring what we think it is measuring. The validity of the Wechsler Scale has been evaluated by means of numerous studies on the relationship between Wechsler scores and those yielded by other intelligence scales and practical criteria. The highest relationships occur between Wechsler and Stanford-Binet I.Q.'s. The test has also been validated by comparison with school grades, and the ratings of experienced judges, such as teachers and psychiatrists. For example, a correlation of .79 on a possible range from zero to 1.0 was found between psychiatrists' recommendations as to mental deficiency and scores on the Wechsler.

### Diagnostic Use of Intelligence Tests

Since tests like the Wechsler and Stanford-Binet seem to be an adequate measure of intelligence, we come to a consideration of their diagnostic use. Most obviously, of course, they can be used to obtain an I.Q. But here several cautions seem appropriate. The I.Q. is a measure of intelligence. It is not intelligence itself. At best it might be called a measure of something like *functioning* intelligence, and everyone knows that one's functioning intelligence is not the

same as his potential, previous or original intelligence. Original intellectual potential is assumed to be limited by heredity. Functioning intelligence, on the other hand, as evidenced by an I.Q. score, may be limited by many factors, as for example: 1) brain damage, 2) anxiety, 3) poor health, 4) cultural background different from the group for whom the test was designed, 5) psychosis, 6) disinterest, 7) lack of schooling or cultural isolation.<sup>7</sup>

The trick with the Wechsler is not to arrive at an I.Q., which anyone of reasonable intelligence can learn quite effectively in a month's time. The trick is to be able to evaluate the I.Q. obtained—to estimate the probable effects of factors like those mentioned above. One can always be sure that a person is very little, if any, less intelligent than his I.Q. score. One cannot be half so certain that he is not more intelligent. Another limitation is that the Wechsler I.Q. is a rough measure of over-all intelligence. A musically talented person, for example, average in other respects, will score average on the test, giving little evidence of this isolated, highly developed area of competence. Despite these limitations, the Wechsler is a very useful test for making a rough estimate of a person's everyday functioning intelligence. Furthermore, it can often lead to intelligent guesses about the nature of the factors which may be limiting the person's functioning intelligence. Just as one can say that it is not that statistics lie, it is that liars use statistics; one can also say that there is nothing wrong with I.Q. scores, the trouble lies with the people using them.

Because different types of behavioral disorders have a tendency to selectively impair not only emotional but also intellectual performance, it is possible to get some clues about the possible nature of a person's illness from his intellectual performance on an intelligence test. For example, it has been found that certain types of organic brain disorders are more likely to disorganize a person's functioning on I.Q. test items that demand visual-motor skills, new learning, and abstract thinking, than on those that measure general information level and vocabulary. However, a more



specific discussion of selective impairment in psychiatric disorders is beyond the scope of this discussion. It seems more profitable to devote the remainder of the present discussion to considering a few of the immediately important questions that arise concerning intelligence tests.

There are available a number of group tests of intelligence, suitable for schools, industry, or the armed services, since they are economical of time and since they can be given by an administrator with a minimum of training. These tests are somewhat cruder than individual tests, but they are useful as a screening device. Practical decisions about children or other individuals who deviate on these tests should not, however, be made without individual follow-up testing by a competent psychologist, and an investigation of other factors within the individual's life which may be affecting his performance, including his general health and sensory functioning. This may sound obvious, but there have been a number of unfortunate incidents where teachers and others have erroneously traumatized parents by glibly telling them that their child was mentally deficient on the basis of a low score on a group I.Q. test. In the armed services, malingering might be a problem on group I.Q. tests such as the AGCT, or the Armed Forces Qualification Test. The chief of Navy psychiatry once put it succinctly in a discussion of selection when he asked, "How smart do you have to be to fake the AFQT?"

In doing an intelligence test on a child or an infant, we are likely to be interested not only in the child's current intellectual status, but also in his probable intellectual status at some future time—when he enters first grade, junior or senior high school, or college, or when he reaches intellectual maturity. This desire to predict the future of the child's intellectual growth is more than idle curiosity. Some of the decisions that *must* be made today about the youngster's psychological welfare can be made more wisely if something is known about what his intellectual status will probably be at some future date. For example in placing a young child in an adoptive home, the social agency can better match the psy-

chological character of home and child by considering the child's acceptance in, and adjustment to, a particular family unit through the development period. Intellectual status is an important variable in this matching process.

Unfortunately, all of the systematic psychological investigations that have been conducted demonstrate that predictions of intellectual status at maturity on the basis of I.Q.'s obtained during the early years involve a large margin of error. However, almost all of the correlations are positive—the predictions are better than could be obtained by flipping a coin or rolling dice. But they are often not much better. Experimental results show that predictive efficiency gradually declines as the time separating the intelligence approximations increases. For example, the correlation between mental test scores secured at 21 months and those secured at 18 years is about .08, a very minor relationship.<sup>1,4</sup> The comparable correlations between mental test scores obtained at 6 and 18 years is about .62, a much more substantial relationship.<sup>5</sup> In general, research evidence leaves little doubt that intelligence approximations made during the first two years of life, such as those from the Gesell or Buhler type scales are pretty useless in predicting intellectual status during the later preschool years. Unfortunately, psychologists can make very little contribution to the social agency that may wish to predict the intellectual development of babies before placing them in adoptive homes, except to pick up obvious defects—though, of course, these latter are of great importance.

By the time children are of preschool age (2 to 5 years) it is possible to predict their later intellectual status with somewhat greater accuracy, and the accuracy consistently improves throughout the school years. Thus, while there are still considerable sources of error in tests given during the preschool and early school years, the tests may still be moderately useful in predicting later ability. And, of course, they can be of great value in measuring present ability.

The question that may legitimately be raised about the difficulty of predicting fu-

ture performance from present performance is, "Why is this so?" First of all, no test is perfectly reliable, as we have seen. There is always some margin of error in estimating present intellectual status. Second, as noted previously, we do not measure intelligence directly, but only what a person can do or what he has learned. We try to select items that all children in the culture will have had equal opportunities to learn, so that differences may be attributed to their biological potential. But this is only partly possible. Consequently the child who has had very limited cultural opportunities as compared to other children will be unduly penalized on an I.Q. test. We have already pointed out the necessity for the psychologist to be sensitive to these sources of error in evaluating test performance. The result is that one child's score may go up through the years due to great cultural advantages, and another child's score may go down due to extreme deprivation. Third, although we call them both intelligence measures, we are not measuring the same thing in infants that we are in adults. In the infant we measure primarily sensorimotor development, and in the adult largely verbal proficiency. There is no inherent reason to assume a one-to-one relationship between these two kinds of ability. Fourth, different individuals seem to have different growth rates, though they may arrive at the same point eventually. If so, the child with a slow rate will receive an unduly low estimate of future intelligence compared to a child with a fast rate.

Thus it should be emphasized that, except for noting obvious deficiencies, we should be very cautious about using estimates of future intelligence based on infant testing.

Speaking again of averages, it has been possible to determine, through an analysis of test data from various I.Q. tests, that absolute intellectual capacity (not I.Q.) improves rapidly from birth till about 20 to 24, when it levels off and then very gradually declines over the years.<sup>11</sup> It is interesting to note that this curve closely approximates a number of physiological measures of capacity, such as the vital (or lung) capacity and brain weight.<sup>10</sup> For-

tunately, however, we may add in experience what we lose in absolute ability as the years go by, but there is no doubt that younger people are better on some kinds of jobs and older people on others, depending on the particular demands of the job.

#### Sources of Error in I.Q. Scores

In addition to the problems of accurate and representative measurement of intellectual status, there are other problems in estimating successful performance from I.Q. test scores, even on highly academic types of tasks. It cannot be stressed too strongly that the factors of drive, interest, health, and personality adjustment will be important factors in determining success in particular tasks. An interested, well-adjusted boy may do far better in school than a bored unadjusted one, despite the latter's superiority in I.Q.

This fact was beautifully shown in a study by Ruth Monroe,<sup>6</sup> who showed that success in a girls' college could be predicted considerably better by a combination of an I.Q. test and a test of personality adjustment (the Rorschach) than from either alone. This last point recalls the unwisdom of giving curious, often too curious, parents exact estimates of their children's I.Q.'s. Too often the results are assumptions that the child need not work to succeed if he has a high score, or that he is hopelessly doomed if he is below average. It is far better to give the parent only what practical advice he needs, such as that a child might have an easier time becoming a clerk than becoming a doctor; or that he should, other things being equal, be able to handle college work; or that for his own sake he should be in a special class. Specific information about I.Q. scores almost always leads to trouble. The ultimate abuse of I.Q. scores that the author knows of occurred in one school he is acquainted with, where the principal posted the results of a group I.Q. test on the bulletin board in descending order of I.Q. for all the children to inspect!

We have already indicated that I.Q.'s can be raised or lowered through cultural opportunity, through malnutrition, disease, lack of motivation and the like. There is general evidence, however, that the limits beyond which a child cannot develop are

set by heredity. For example, Burks<sup>2</sup> studied a number of foster and true children in the same homes, where cultural and other opportunities were almost the same. Despite the environmental similarity, there was a much closer relationship in I.Q. between the parents and the true child than between the parents and their foster child. Correlations of the father's mental age with his foster child averaged .07, but it averaged .45 with his true child. Similarly, mother's mental age correlated .19 with foster, and .46 with true child. Thus, while we can help children to develop both intellectually and emotionally to the limit of their capacities, we cannot train them beyond their capacities; and efforts to do so will only result in frustration, misery, and, ironically enough, probably lowered rather than heightened intellectual performance.

Finally, it might be desirable to correct one more old wives' tale that, fortunately or unfortunately, is not true; namely, that high intelligence is related to insanity, to physical weakness, or to poor adjustment. Unfair as it may seem, the true situation seems to be a case of "To him who hath shall be given."

In Terman's<sup>2,9</sup> gigantic study of gifted children (I.Q. of 140 and above), his results showed that these children are superior throughout the growth period in physical development (height, weight, age of walking, health, etc.). They master the subject matter of the school curriculum to a point about 40 per cent above their chronological age. Nearly 90 per cent enter college and of these about 93 per cent graduate—many with honors. Their social development is superior to that of other children, although they tend to seek out somewhat older playmates. Their character development (moral stability, trustworthiness, etc.) is definitely superior to children of average intelli-

gence. According to teacher and parent ratings they are superior to other children in practically all aspects of development except mechanical ingenuity, in which they perform somewhat below other children.

As adults (average 35 years) they are still superior in physique and health. Their vocational achievement to date is well above that of college graduates in general. Morbidity, divorce, and insanity rates within the group are about the same as in the general population. In other words, they have maintained their superiority in the general population in almost every characteristic studied.

### Summary

In general, one can evaluate intelligence tests in a manner similar to other diagnostic tools; in other words, while they are useful instruments when skillfully employed, in the hands of incompetents they may easily be abused.

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### HEALTH NOTES—

In 1900 influenza and pneumonia took a toll of 80 persons per 100,000 population in the young adult ages (15 to 44), according to Health Information Foundation. By 1955 mortality from these causes had dropped to around 4 per 100,000 persons in the same age group.

In the past fifty-six years mortality from tuberculosis has declined from 199 to 8 per 100,000 population, according to Health Information Foundation. While this is remarkable progress, the Foundation notes, tuberculosis is still a great health problem, with 100,000 new cases reported in the United States in 1955.

# The Control of Diarrheas In Infants and Children

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CHEYENNE, WYO.

*A sponsored study of the use of a popular product in the control of diarrhea in youngsters. Succinct outlines and tables for management are included.*

**F**LUID and electrolyte therapy have played an important role during the past decade in reduction of infant mortality associated with diarrhea. Excessive loss of fluid is one of the most trying problems with which the pediatrician and nurse have to deal.

## Etiology

When one considers the advances which have been made in our conquest of bacterial infections and in the prevention of many disorders which stem from some nutritional deficiency, the high incidence of gastrointestinal disturbances and diarrheas seems quite difficult to explain. It is tempting to believe that in the majority of cases the answer may rest in carelessness, shortcuts in preparation of infant formulas, or that conventional methods of sanitation have not been observed. Mothers will frequently admit that they have given their infants raw milk produced from the ranch, often under conditions which might lead to contamination. Mothers are also often inclined to treat gastrointestinal upsets too lightly and delay the start of proper therapy until more serious consequences develop; and effective treatment is therefore made increasingly difficult.

In the noninfectious type of diarrhea many factors may be responsible, and the condition may occur in varying degrees of severity:

(a) Direct irritation of the intestinal

tract by unripe fruits or improperly cooked vegetables.

(b) Allergic reactions or idiosyncrasies to certain items of the diet.

(c) Nervous influences resulting from emotional excitement, frustration and fatigue.

(d) High summer temperatures which increase the growth of putrefactive and fermentative organisms. This type is more noticeable as one gets farther away from areas of appropriate sanitation; and the incidence likewise decreases in the colder latitudes.

(e) Direct contamination of food by bacteria or viruses; or direct intestinal infection, which is stated to account for the majority of instances of acute diarrhea.

The causative organism may not be infectious in the accepted sense of the word but will develop in the intestinal tract under certain environmental changes brought about by dietary irregularities or by physiological suppression of digestive enzyme activity. Protein malnutrition may be the decisive factor in many severe diarrheas and result in damage to both the liver and the pancreas.

Although acute diarrhea is frequent in older children, fortunately the effects are much less severe than in infants. General metabolic disorders are still relatively common and a higher incidence is encountered in the so-called second summer, dog days or Indian summer.

#### D. Treatment of Severely Ill Hospitalized Patients:

These patients, fourteen in number, presented a much more difficult and serious problem, and the following treatment was instituted:

1. Strict isolation technic.
2. Stool cultures.
3. Blood typing and cross-matching.
4. Antibiotic sensitivity tests and indicated antibiotics were prescribed.
5. All food and water stopped orally.
6. Fluid and electrolyte therapy started at once to replace fluid loss and maintain normal daily requirement.

For the sake of brevity a detailed discussion of these cases will not be taken up. All but one recovered. An Indian baby with an overwhelming infection of *Escherichia coli* 0-111 died a short period after admission. This was the only fatality in the entire series.

#### Convalescent Care

1. Milk and solid food were usually restricted from the diet until four or five days after onset of treatment—and then only when there was a complete absence of diarrhea, abdominal distress, nausea and vomiting were these items returned to the diet.

2. Half skimmed milk (boiled three minutes) was gradually introduced and patient was returned to a normal diet very gradually over a period of a week or ten days.

3. Donnagel was gradually introduced in the same dosage as previously outlined, about one week after hospitalization.

**TABLE 2**  
Duration of Loose Stools in 114 Infants and Children (Not Hospitalized)

Age—	Av. No. Stools Before Treatment	Av. No. Stools After 3 Days' Treatment	Av. days Treatment Before Complete Return to Normal
6 to 8 weeks.....	12	4	7
2 to 6 months.....	12	3	5
6 months-1 year.....	9	3	5
1 year-6 years.....	8	2	4
6 years-12 years.....	6	2	4

The fewer stools which occurred in the older age group can be attributed possibly to volitional control on the part of the young patient.

**TABLE 3**  
Average Dosage of Donnagel

Under 6 months.....	½ teaspoonful twice daily
6 months to 1 year.....	1 teaspoonful twice daily
1 to 6 years.....	1 teaspoonful three times daily
6 to 12 years.....	2 teaspoonfuls three times daily

This treatment was continued for at least one week after bowels returned to normal. In all cases the medication was taken with no ill effects and with no difficulty, with the exception of a few children who refuse any medication from a spoon. With these children, medication was conveniently and effectively disguised by mixing with the food.

#### Summary

1. A series of 128 cases of diarrhea in infants and children treated with Donnagel was evaluated.

2. Ages varied from 6 weeks to 12 years.

3. Fluid and electrolyte therapy played a life-saving role in the reduction of infant mortality in the hospitalized cases, which numbered fourteen.

4. Antibiotics and in some cases, sulfonamides, or combinations of antibiotics and sulfonamides were used.

5. Donnagel was given with excellent results in all mild or moderately severe cases.

6. This preparation was also used during the convalescent period following hospitalization.

7. The efficacy of the treatment can be attributed not only to the demulcent, detoxicant and antispasmodic effect it has on the gastrointestinal tract, but the antacid and sedative properties are of considerable importance in bringing about a speedy recovery.

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# *A Physician's Concept Of the Future of Medicine\**

J. D. McCarthy, M.D.

OMAHA

THE medical profession can look back with pride on its heritage and accomplishments. No profession, other than the clergy, has functioned in as purposeful and conscientious a fashion down through the centuries as the medical profession. The present century, however, has seen changes mostly for the good as far as the health of our people and the science of medicine are concerned, but other changes definitely detrimental as far as the practice of medicine is concerned. There are, I know, many who well remember the years they practiced with no other concern than the care of their patients. Then in a subtle way, and unnoticed because of our near total ignorance and inexperience in "worldly affairs," harbingers of ill omen made their appearance. One by one and at times two by two—all in the same cadence—regulatory and taxatory (now confiscatory) cobwebs made their appearance which in many instances only threatened but lately have spidered into a gigantic web which now has a definite pattern.

The basic principles of the practice of medicine which primarily concern the sacredness of the patient-physician relationship have been ignored by too many in their mad rush to biologically remake and reshape humanity. Clearcut reasoning has been ignored or discarded in many instances and political expedience has been substituted instead. No wonder, in view of these factors and many more, that the present day practice of medicine finds itself in the middle of an all-encompassing web which has been spun by internationally and na-

tionally minded individuals and groups, and from which there will be no exit unless the web pattern is broken and continued spinning stopped. Mention of past and present has been made to remind you all of the converging elements which now so realistically point up possibilities for the future.

It will be impossible to impart to you my crystal ball gazing as to the future without categorically discussing some of the present factors involved. Reiteration of these factors is the only method whereby we may finally rouse into action all the forces at our command and head off further encroachment by socialistic trends.

## **Education**

Is there anything more important to the medical profession, especially as it relates to the future, than the quality of the total education of physicians? Realistic studies are being made by experts as to what should constitute, in this day and age, adequate premedical education. Many hold the opinion that this particular period in the life of a physician could be shortened. I am inclined to agree with the idea. Opportunity for more time spent in graduate preparation for general practice or specialization should be highly instrumental in the total maturation of the newly fledged physicians and thereby improve medical care. I am confident that the group making this study will be able to formulate an adequate workable plan in the near future. Although curricula are at present in a state of flux, I am sure that medical colleges will soon be able to plan a near conformity in pattern. This will mean much to the immediate graduate in medicine, especially as it relates to internship, residency and licensure.

\*Read before the Colorado State Medical Society 86th Annual Session, Estes Park, Colorado, September 5, 1956.

Many of you are conversant with what transpired during the June meeting of the House of Delegates of the American Medical Association regarding privileges of members of medical college faculties. At long last we have policies and definitions reflecting the judgment of the American Medical Association through its House of Delegates which should have the support of medical college officials. The status of "full time," "part time" and "voluntary" members of medical school faculties are now clearly defined. The over-all picture has not been settled by the House of Delegates' adoption of the report of the Committee on Medical and Related Facilities of the Council on Medical Service. Full cooperation, however, from officials and faculties of universities and medical colleges and of the component medical societies involved, through joint meetings of all concerned, will develop the ideal solution. This subject has already created much misunderstanding and dissension, and if not promptly resolved it will but add fuel to the fire, which confuses and impresses our lay friends in the belief that we must have outside guidance.

It is my ardent hope that the voluntary teacher will always maintain an important part in faculty assignments. After all, he is practicing medicine and can impart to the students his knowledge and experience not only on the science but the art of medicine as well—a combination indispensable to the success of a topflight physician.

Unless a student is primed for the general practice of medicine, he is denied the very fundamentals of the practice of medicine, especially if he later elects to become a specialist. Some of our medical colleges are giving to their senior students an excellent opportunity of gaining personal and actual first-hand information in the general practice of medicine through so-called preceptorship assignments. At the University of Nebraska this plan has been in vogue for eight years and has been an important instrument in helping the student to decide as to his preferment. Each year has shown an increase percentagewise in those who elect to become general practitioners. Regardless of geographic location, all medical schools should include in their respective

curricula a definite schedule relative to general practice and forensic medicine.

Internships and residencies play an important part in developing the talents of the embryo physician. Without this part of his education he would be an apprentice of the first order and in many instances a menace to society. Therefore it behooves those responsible for this important program to give it their all.

I am deeply concerned with the mediocre response of physicians to the pleas of the American Medical Education Foundation for funds, which will revert entirely to the respective medical colleges. There is not one physician who is not indebted to his Alma Mater morally and financially, as well as for his niche in life. Unless our medical colleges are able to exist on their own respective financial independence, you know who is going to step in, and should that happen we will have lost our first and most important bulwark of defense against the total socialization of medicine.

#### Licensure and Certification

State and National Boards are doing a splendid job in assuring the citizens of our country that physicians who are licensed have qualified to practice medicine only after rigid regulations have been met and thereby they are competent to take on the prevention of disease and the care of the sick. The future of medicine is dependent on not only elevating the standards of the graduates of medical colleges of the United States, but the processes of licensing graduates as well. Foreign graduates must measure up to every requisite we place upon the graduates of the medical colleges of the United States. Being a member of the Nebraska State Board of Medical Examiners and of the National Board of Medical Examiners, I can tell you that this particular problem is now well in hand—that is, as far as the State of Nebraska and the National Board of Medical Examiners are concerned.

Certification by a specialty board is, as you know, a bone of contention. The realization that a third of the practicing physicians of the United States are today certified as specialists, gives rise to specula-

tion as to what might happen to the ratio of specialists to general practitioners during the next twenty-five years. The family physician is the backbone of the practice of medicine. However, medicine being what it is today, where would we be without the highly trained and skilled specialist? Combine the two and we have the big reason why the citizens of the United States enjoy the finest medical care on earth. Controversies having to do with the general practitioner versus specialist, general practitioner versus hospital appointment, et al., should be amicably settled at the earliest possible moment. Certainly so-called organized medicine, throughout all levels, has given straightforward recognition to the rights and privileges of general practitioners. It seems to me that the solution to the controversies will be found only after there has been agreement on the part of all concerned, at the local level.

### **Hospitals**

Another problem that must be solved if the future practice of medicine is to maintain the standards of the past, is the relationship between physicians and hospital management. The medical profession has lost, to a considerable degree through default, not only its control of the policies and administration of the hospitals but the undergraduate training of nurses as well. Well do I remember during my graduate hospital assignments the dominance of hospital staffs in the management of hospitals and affiliated nurses' training. For many years I have observed a creeping deadly apathy on the part of physicians relative to hospital management. Whenever any professional group adopts such a state of mind, we may look forward to lay groups taking over. This tendency will grow unless we see to it that there is more representation from medical staffs in the management of hospitals. It is high time that physicians demand their rightful place on hospital boards of trustees and lay committees so that their advice, based on experience in hospital management and care of the sick, can be given consideration.

In many hospitals we are still embroiled in controversies over the status of physician specialists in radiology, anesthesiology, pa-

thology and physiotherapy. Unless maintained on a strictly patient-physician relationship, their status will become an influential factor in shaping the future practice of medicine. Add to this the fact that some hospitals are employing full time staffs to take over the care of the sick and you have still another weathervane pointing to menacing storms ahead.

### **Ethics**

Ethics will play a very important part in the future practice of medicine. Fortunately for us, the Principles of Medical Ethics of the American Medical Association, which were lengthy, controversial and in some instances ambiguous, are now streamlined to about the length of The Ten Commandments.

All state medical societies now have Grievance Committees wherein patients with imagined or actual grievance have a court of appeal which will hear the charges and, without prejudice, render a decision in support of the plaintiff or the defendant. This has proved invaluable in solving disputes at the local level, without fanfare, adverse publicity or court proceedings. The new Principles and the creation of Grievance Committees will, I am sure, be most helpful down through the years.

### **Voluntary Prepayment Insurance**

I need not go into detail as to the effect of this very important cog in the present day practice of medicine. But where do we go from here and how far do we go? We all oppose those Blue Cross plans which try to take over Blue Shield prerogatives. This has been an insidious movement but persistent. If it continues it will contribute to the subjugation of free enterprise as far as the medical profession is concerned. Do not confuse the insurance industry and its efforts to provide both hospital and professional care in one package with Blue Cross, whose original influence had to do only with hospital insurance—not professional care. That purpose, at least as long as Blue Shield is in the field, should be a continuation program without deviation.

Herein lies the answer, to a considerable degree, to the future practice of medicine. Medicine is past the crossroads, where free-

(Continued on page 586)

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1. Boger, W. P.; Strickland, C. S.; and Gylfe, J. M. Antibiot. Med. & Clin. Ther. 3:378 (Nov.) 1956.

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dom of action, on the one hand, and control, on the other, met. The history of nations which have gone wholly or partially to the left demonstrates that the practice of medicine was the vehicle on which they rode to gain their ultimate objectives. That today is the crux of the situation in our country.

### **Federal Legislation and the Practice of Medicine**

It might seem at first glance that the present day trends found origin only a few years ago, but insidious propaganda and political build-up anteceded the out-in-the-open-push by many years. It is only natural that the proponents of ideologies such as communism, socialism, fascism and new or fair dealism would choose medicine as their entering wedge, for with it as their target they can offer schemes which will appeal to those who desire or demand some type of aid regardless of source. They know full well that only a few who read or listen to their propaganda will take the time to investigate their claims. Propaganda and claims of this character can be so worded and dressed up that it is understandable why the heartstrings react rather than the grey matter. Physicians who disregard such emotional reactions rather than offering rebuttal, permit the pyramiding of adverse and subversive legislation. They must be thoroughly acquainted with the over-all picture in order that they may be able to challenge and defeat trends which would in any way lend aid in tearing down our form of government. This is not possible unless they read the readily available and informative writings on this subject. If physicians would familiarize themselves with what organized medicine is trying to do to maintain the practice of medicine as a free enterprise and then seek the opportunity to enlighten their lay friends about it, at the same time pointing out the efforts being made by government to take away our inalienable rights, we will build a militant force as allies—and how we need allies! Citizens of the United States are interested in the whys and wherefores of the trends which mimic those rampant in other nations. If all are alerted to what is happening, I am sure there will be a

swelling crescendo which eventually will sweep aside and bury not only the "isms" but their disciples as well.

To quote one of the greatest Americans of all times, "Public sentiment is everything. With public sentiment nothing can fail, without it nothing can succeed. Consequently he who molds public sentiment goes deeper than he who enacts statutes or pronounces decisions. He makes statutes and decisions possible or impossible to be executed." The author of this statement was none other than Abraham Lincoln.

Having been the vice chairman of the Committee on Legislation of the AMA, I could discuss at length so-called Social Security legislation if space permitted. One of the Colorado State Medical Society's prominent members, Dr. McKinnie Phelps, has been a tower of strength to this committee and thereby to the profession as a whole.

Lump together all of the legislation dumped into Congressional hoppers having to do with the practice of medicine, whether or not enacted into law, and you have the crux to our present predicament. Legislation dealing with social security, or call it socialized medicine if you will, continues to gnaw its way toward more and more federalized control of the practice of medicine. During the past decade piecemeal legislation of this type has been enacted into law. It has had a far-reaching effect. Project that effect, along with more legislation of the same character, and it takes little imagination to figure the end result. Legislation once adopted, no matter how foul it may be, is almost impossible to eliminate. As a matter of fact, side chain after side chain is frequently added. We must find a way to prevent further inroad.

The great majority of physicians have shown little concern about the efforts made by the few to defeat legislation inimical to the practice of medicine. What is it going to take to make physicians more conscious of what is happening not only to them personally but to medical practice as well? Again by default the medical profession as a whole has lost ground in its fight to preserve its heritage. And why? The AMA and state societies will never be able to

achieve success unless they have the wholehearted support of the entire membership; not only in thinking but militant action as well during the last decade. Bills having to do with the outright socialization of medicine have been defeated until recently. Threatened with total socialization, the results obtained and the purposeful efforts made by national, state and local medical groups, through the widespread and concerted action of a great number of individual physicians was most fruitful. That which we now need more than ever is direct contact between physicians and their respective representatives in Congress. Messages coming direct from home folks will have more effect than the less personalized messages from organized groups.

Do not take our defeat lightly in the enactment of certain sections of H.R. 7225 (Social Security Act). This type of legislation enacted by the Senate primarily through the emotional outbursts of some and the blind stupidity of others will plague us from here on in. What is total disability? Well, one version of it will be found in the individual who will claim total disability because of "my bad back" but for which no cause can be found after series of complete studies by highly competent physicians. Public Law 596 concerning the medical care of dependents of those in the military should be mentioned under this category, but it would be premature to discuss this law at this time.

I cannot begin to name or total all the actual and potential beneficiaries of paternalistic medical care. Today in the Hall of Congress there are many who would make of us "vendors of medical care," and this particular title is to be found in certain bills introduced which have to do with the medical profession and the care of the sick. Legislation such as I have referred to, already having dug deep into the heart of free enterprise, regardless of vocations, if permitted to go on, will ensnare all of us in socialistic whirlpools.

Give consideration to the platforms enunciated during the Democrat and Republican national conventions. Did you take time to read the planks of both parties having to do with the facets of medical care? Both

in essence proclaim the thought that the future health of our citizens should rest in the laps of federal bureaucracies. Personally I can see no particular difference between the two parties as to their ultimate goal. Legislation dealing with health and disease enacted during the past three and one-half years, although in some instances opposed by the President and the Department of Health, Education and Welfare, is nothing more than a continuation of the New and Fair Deal philosophies.

The Honorable Herbert Hoover stated in his speech at the convention of the Republican Party that "It was so important to combat malign ideas threatening freedom that the convention should have scrapped its traditional platform and substituted a resounding declaration of the principles of American life." This statement was so right, and because of its clarity needs no further comment. Paternalistic legislation has already reshaped the practice of medicine, and unless we as individuals of the medical profession take more positive action than that shown in the past, it will not be long before every physician will be able to write his own prognosis as to the future of medicine. It has been aptly stated, "Those who would sacrifice their liberty in this our court of democracy for nebulous socialistic schemes will beget tyranny and slavery."

Not only we as physicians but our wives in particular, who make up the auxiliaries, can do much to offset the threatening malignancies. The auxiliaries have shown in many instances that they can be not only a driving force but most influential when it comes to molding public opinion. We should use their talents more than we do.

#### **Civic Responsibilities**

It has been charged that of all groups, physicians hold the unenviable reputation of being the least civic minded. This charge has been hurled at our profession by politicians, members of other professions and lay groups, and unfortunately when such accusations are made there is little defense to offer. It is true that the great majority of physicians have one main objective—the art and the practice of medicine. It is true that a great number of physicians have

become so engrossed with the practice of medicine that they do not even pretend to interest themselves in vital questions having to do with national, state and local affairs, medical or otherwise. It is equally true that because of the devotion that these physicians have given to their professional work, medicine in the United States tops by a wide margin that of other nations. Those who denounce us because of our seeming lack of interest in public affairs do not consider the foregoing as adequate reasons for our nonparticipation in civic affairs. If we persist in our ways, we have in the offing another dominant alienating factor which in the long run will influence the future practice of medicine.

Why as physicians can we not realize that the aims and objectives of organized medicine are dovetailed with civics and that if we would cooperate and help to carry out lay-physician objectives such as public relations, public health, rural health, health councils, et cetera, we would continue to fulfill not only our obligations as physicians but those of good citizens as well.

We have again fallen down on the job in that we have not supplied leadership in community health. Is it any wonder that lay organizations are now the directing forces in a great many projects having to do with health? The medical profession, through complacency and indifference and because of limited interests, namely the total practice of medicine, has forfeited what should morally belong to it—leadership in all affairs having to do with the health of our people. In that physicians did not take over and direct the fight against diseases such as poliomyelitis, tuberculosis, cancer, cerebral palsy, and others, laymen have stepped into the breach and are now in control, at least insofar as public interest and support are concerned.

It is high time that physicians recognize

that factors other than socialized medicine are on parade, some of which will lead to other types of domination of our profession if not stemmed. There is a small minority of physicians who have interested themselves not only in the practice of medicine but in civics as well. They recognize their obligations as citizens, and in so doing sacrifice time, practice, energy—yes, even life expectancy—so that better health may be available to all, patient-physician relationship kept sacred, and the American way of life preserved.

#### **Labor**

Dr. William A. Sawyer, who has chairmanned the Committee on Medical Care for Industrial Workers of the Council Medical Service of the AMA for years, has given us his views and the "Views of Labor on Medical Care."\* I was tempted to include in my discussion a paragraph or two on "The Views of Medicine on Labor's Demands." This I shall forego. There are many topics bearing on the subject at hand which I have not touched upon—not because they are not important, but rather because of lack of time.

#### **Summary**

In conclusion may I state that unless the practice of medicine remains free and unfettered as it was up until recent years, the future cannot keep pace with the glorious past. It will decline. Fortunately, regardless of what happens to the practice of medicine, the science of medicine will continue a forward march even more brilliant than that of the past. However, one without the other, rather than both marching together hand in hand, will defeat the prime purpose of both—the best of medical care for those we serve. What and how much are we willing to sacrifice in order that the past will endure?

\*See Page 589, facing.

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#### **USPHS LAUNCHES NATIONWIDE HEALTH SURVEY**

A new National Health Survey was instigated in May by the U. S. Public Health Service, according to AMA's Council on Medical Service.

Facts to be collected include statistics on the number, age, sex, and other personal character-

istics of persons suffering from diseases, injuries, or handicapping conditions; the length of time that these people have been prevented from carrying on their usual activities, and whether or not the conditions have had medical attention. The last survey of this nature was conducted twenty years ago.

## Views of Labor on Medical Care\*

William A. Sawyer, M.D.

ROCHESTER, NEW YORK

LABOR'S views on medical care are really very simple and forthright. The process of translating these views into action, however, is neither simple nor forthright. It has stimulated new developments in the field of medical care, and at the same time it has given rise to certain complexities and confusion and mistrust. I welcome the opportunity of attempting to set forth some of the basic issues that have developed from this increasing interest of labor in the health of its members and their families.

Labor's health goal is simply this: comprehensive medical care on a prepaid basis. No matter where you look in the labor literature, this is the theme which is most frequently expressed.

For labor, good health is a necessity. With an average income of \$3,830 a year, workers have little "buffer," if illness sets in. The expenses of almost any illness can wipe out a family's small savings in short order; and, if the father is ill, the income stops. If the mother is ill, help is needed and there is no margin to pay for this. Thus real illness is a thing to be greatly feared. To the proud laboring man, charity and free medical care in the wards and clinics is not the solution he wants.

Labor found long ago that its only strength lay in its great numbers; if they helped each other, by combining their strength, they had a chance to work things out in a way that didn't exist for the individual. Thus through union action, they are seeking to solve those dangers which threaten them when illness strikes. In a prepaid plan, every family pays a certain amount, and as in other forms of insurance, those who are fortunate, help to pay the

expenses of those who are not. They are interested in comprehensive care because they want to prevent illness if they possibly can. Their greatest safeguard is simply not to be ill. If more complete medical care can help in this, they want it.

Many labor leaders are convinced that this goal can be obtained only through governmental intervention into the field of medical care. I believe that the past decade, however, has shown a rise of hopefulness that this goal can also be obtained through the best possible use of the facilities right at hand — through voluntary cooperative action on both the local and national levels, between the purveyors of medical care, the doctors, and the consumers of medical care, the public.

David J. McDonald, president of the United Steelworkers, expressed this feeling in an address before the Annual Conference of Blue Cross and Blue Shield Plans, to which plans the collective bargaining agreements of his organization pay more than thirty million dollars annually in premiums. He said<sup>1</sup>:

"It is not my desire, nor the desire of the United Steelworkers of America, to change the pattern of medical practice in our country. The great and growing demand of steelworkers, and of all workers, for comprehensive pre-payment medical programs gives the medical profession and your organizations the chance to demonstrate the kind of leadership the world today seeks from the United States. Yours is the opportunity to develop, within the framework of private practice and freedom of choice for the patient, a method by which the burdensome costs of medical care may be met through privately organized prepayment plans."

Jerome Pollack<sup>2</sup>, Program Consultant for the United Auto Workers Social Security Department, has also pointed out labor's special interest in the field of health. As he

\*Read before the 86th Annual Session of the Colorado State Medical Society, Estes Park, September 5, 1956. The author is Medical Consultant to the International Association of Machinists.



of doing business—one of the first charges before profits."

As a matter of fact, health is one topic on which labor and management can come together and work with real cooperation toward a common goal. Perhaps the chief reason for this cooperation is that each side realizes the direct benefit that it can obtain from a health program. Industrial medicine pays off for management.

One factory, for example, reported<sup>5</sup> that it saved four dollars for every dollar spent on its health plan. Another study showed that an average employee working in a plant with a health program was absent only four days a year because of sickness, compared to nine days per employee in a company without a plan. Other surveys<sup>6</sup> of large numbers of companies with health programs have reported reduction in compensation premiums averaging 30.3 per cent, reductions in accident rate amounting to 43.5 per cent, reductions in sick absence averaging 25.6 per cent, reductions in labor turnover averaging 29 per cent, and reductions in occupational disease averaging 45.6 per cent. If industrial medicine has proved so valuable and so profitable to management, is it not natural that management have as vital an interest in non-occupational illness—which causes 90 per cent of all sickness absence—as it has come to have in occupational illness and accidents, which account for only 10 per cent of absence from work? It is the whole man that management employs to do its job. Thus it is the maintenance of the whole man that is important. It matters little whether a man is suffering from undiagnosed and untreated diabetes, or whether he is troubled by an occupational hazard resulting from improper ventilation, or whether he is worried about an ill wife or absent to help fulfill the family's needs during her sickness. Any of these disabilities, whatever their source, renders him somewhat incapable and ineffective as a worker—and thus a problem both to himself and to the company which employs him. A healthy working man, with a well family, is a better worker. Labor knows this. Management does too. They are coming together more

and more to achieve it, and in some instances they are sharing its cost.

At the same time that labor and management have both been moving forward in their interests in the health of our working force, so have the American Medical Association and the U. S. Public Health Service. The A.M.A. has dealt with the topic primarily through its Councils on Industrial Health and Medical Care and their Committee on Medical Care for Industrial Workers. This committee developed the "Guiding Principles for Evaluating Management and Union Health Centers". These principles were adopted at the 1955 meeting of the A.M.A. House of Delegates and are available for the use of state and local societies and for all members of the medical profession. These principles are not intended as a directive or as a permanent guide in any sense but rather as suggestions for developing better understanding and cooperative action at the local level.

The U. S. Public Health Service has been active primarily in a research and preventive approach through the unique and invaluable activities of its Division of Occupational Health<sup>8</sup>. One of its current research projects is concerned with health hazards in a comparatively new industry—the mining and milling of uranium ore. Another study deals with the effect on hearing of industrial noise. Still another involves the effects of vibration, humidity, and unusual temperatures in the working environment. These and other programs add up to an attempt at the health protection both in and out of work of our basic wealth, our principal natural resource: our labor force.

These interests of management, of the A.M.A., and of government in the health of the worker are all separate tales, which we do not have time for today, but I think it is important to mention the fact that labor's role in health is neither sudden nor solitary. Rather it is part of a large transition, a lively and widespread interest in the whole field of medical care. The point which concerns us today is how these trends and interests and needs can best be realistically integrated with the private practice of medicine.

Let us return again to labor's health goal:



comprehensive medical care on a prepaid basis. There are really three sets of questions to consider. First, is comprehensive medical care desirable? And, if so, is it feasible? Second, is prepayment of medical care desirable? And, if so, is it feasible? Third, if this concept is both desirable and feasible, can it be related to the private practice of medicine or must it adopt new forms of its own? Let us consider these questions one at a time.

I find little argument against the *desirability* of comprehensive medical care. This is the essence of our medical school training, of our traditional obligation to society as mature physicians. This concept is not new, of course, nor did it originate with labor. In fact, an interesting sidelight to today's theme would be to trace this concept of comprehensive medical care back through the history of medicine. It was called by different names, it took different forms and expressions. Nonetheless, this ideal of concern for "the whole man" came from the medical profession itself—from its initiative, its ability, its imagination, its sense of responsibility. Labor is simply asking us how this ideal can be achieved in the daily lives of our people.

When we come to the *feasibility* of comprehensive medical care, however, I think there is a wide gamut of opinion as to how close we can come to this goal. Our general practitioners form the very core of comprehensive care. Yet each doctor must decide for himself (within the hour, the day, the working year) what he properly considers to be first and foremost. And, with the unrelenting pressure and urgent demands made on every practicing physician, I would venture a guess that he is doing very well if the medical care he provides is divided something like 90 per cent diagnosis and treatment and 10 per cent preventive care, health education, and rehabilitation. Even such a division would bespeak a relaxed doctor with a broad and friendly concern for each of his patients. As life gets more hurried and harried, the proportion of time allotted to these extra aspects of medical care dwindles accordingly.

The experiences of various group medical programs, however, would indicate that

these aspects of comprehensive medical care can well go hand in hand, each phase coordinating with and benefiting from the other. Group medical care programs have taken several forms: some are community-sponsored, some are sponsored by management, some by labor, some jointly by management and labor, some by a private federation of physicians.

The Health Insurance Plan of Greater New York is perhaps the outstanding example of a community-sponsored program, available to union and non-union groups alike. What has been its experience with the feasibility of comprehensive care? Its thirty medical groups located in various parts of the city—which receive annual per capita payments for each subscriber—provide preventive, early diagnostic and curative care, with no age limits, no exclusion for pre-existing illness, no waiting periods, no time limitations for its almost 500,000 members. A family doctor, selected by the subscriber, is the essential member of each group. Subscribers are entitled to services by these family physicians and by specialists in their homes, in the doctors' offices, in the group medical centers, and in hospitals. They receive general medical care; specialist and surgical care; maternity and pediatric care; diagnostic laboratory services of all kinds; x-ray examinations and treatment; radium, radon, and radio-isotope treatment; physical therapy; administration of blood and plasma; psychiatric consultations; visiting nurse services in their homes; and private ambulance transportation.

What has been the result? The records show an average utilization rate of six medical services a year, which would indicate very little abuse of the plan, despite the fact that there are no financial barriers to utilization. This kind of comprehensive care comes to an annual cost of about \$36 per subscriber. Labor likes it. Its subscribers include city employees, painters, luggage workers, cooks and pastry chefs, motion picture projectionists, sheet metal workers, automobile workers, newspaper workers, teachers, and machinists. Such a group program is an example of medical centers which receive their income on a

cal care in the hospital, specialist care in or out of the hospital, special rehabilitation services for those severely handicapped, and certain expensive drugs for long periods of treatment. Where local facilities have been adequate, local hospitals have been used. In certain mining areas in Kentucky, Virginia, and West Virginia, where hospital beds and services were inadequate, the Fund found it necessary to construct its own hospitals.

In the year ending June 30, 1955, more than 95,000 miners and their dependents were hospitalized, with more than 1,600,000 days of hospitalization paid for by the Fund. Medical and surgical services for these hospitalized cases entailed more than 1,500,000 visits by physicians. Additional services of specialists were provided through more than a million office and clinic consultations. A total of 1,599 hospitals and more than 7,000 physicians provided these services for miners and their families. In this one year the Fund paid out \$42,773,658.47 for hospital and medical care. The cost of administration was less than 3 per cent; over 97 per cent was for direct services to beneficiaries.

The Fund's sole aim is that a good quality of medical care be provided for a potential of more than a million beneficiaries at a cost that is reasonable and just as determined by the medical profession itself. The Medical Service of the Fund has assured the profession of its concurrence in the principle of free-choice-of-physician and payment on a fee-for-service basis. Problems have arisen, adjustments have been necessary, disappointments and resentments have come to the fore, particularly so since conditions differ so widely over the far-flung area in which the mining communities are located. Among these problems have been unnecessary hospitalization, undue length of hospitalization, unnecessary procedures of various sorts, services performed by physicians not best qualified to render them, failure to make specialist referral when the best interest of the patient would be served, and continuation of care by a specialist when the family physician could perform the service satisfactorily.

Gradually, however, these problems are being worked out. The remarkable thing is not that the problems exist, but rather the outstanding progress that has been made in spite of them in so short a time, with cooperative support by organized medicine at every level.

This long account of labor's activities in the field of health has actually been an attempt to answer the question of the *feasibility* of comprehensive medical care. It is clear that its feasibility has been proved satisfactorily and over a period of years in a variety of group programs, some geared to a community as a whole and others to specific unions. On a private office basis, of course, comprehensive medical care may be more difficult to achieve, from a point of view of equipment, convenience, and patient pressure. Nonetheless it can still be a conscious goal. After all, the private practice of medicine, as we generally see it, is simply another form of a group—a loose and unaffiliated federation of doctors, who refer patients among each other.

Now as to the desirability and feasibility of prepayment. I think it is both understandable and admirable that people, singly and in groups, have an increasing desire to handle their medical needs on a prepaid basis. I think it shows a high degree of realism, of integrity, and of a desire for the peace of mind that comes with responsible planning. Health is one of the necessities of life, surely as essential as food, clothing, shelter. It makes good sense to want somehow to know what these necessities are going to cost and to arrange for their adequate coverage. If a family cannot have the benefit of foresight and planning, it is apt to consider medical costs a matter of chance and luck, and to become resentful and depressed and bitter over a streak of "bad luck." Prepayment, on the other hand, can permit a healthier approach of looking forward to and planning for the periodic need for medical care. As a matter of fact, prepayment is peculiarly necessary for medical care: the very fact of accident or disease may make postpayment impossible.

Again, the *desirability* of prepayment can

scarcely be questioned. The crux of the problem is its *feasibility*. I think that most doctors feel that it is so totally impossible to predict a family's medical costs that it is futile to try. They feel that a fee-for-service basis is the only tangible, meaningful measure. The fact that it is not possible to know in advance how much and what kinds of service will be needed in the future seems scarcely to be the physician's problem.

This unpredictability is thoroughly valid on an individual or family basis. But on a larger scale the unpredictability gives way to real measures of actual experiences, to valid statistics of the recent past and realistic assumptions as to the near future. It is possible to learn now the costs of medical care for groups of people—by communities, by age level, by income level, by job—or even for the country as a whole. And it is certainly within the realm of possibility to apply this knowledge to a local situation—whether the application is made by an individual doctor to his own patient load or to certain groups of patients, or made by a group clinic to its patient load, or by a county medical society to the community it serves, or by an insurance company to its clientele.

Two opportunities exist for prepayment of medical care, both feasible, and both in active use. One is for prepayment into a health insurance program, for aid in handling some of the costs of illness on an indemnity basis; the other for prepayment into a group, for medical care itself. The first is on a fee-for-service basis and is not associated with the goal for comprehensive medical care, but leaves this matter to the individual and his physician. The second is on a per capita basis and consists of a continuing comprehensive care program between the individual and his physician. The fee-for-service plan has one serious medico-economic problem: it leaves to the patient the matter of deciding whether his symptoms warrant the expense of a doctor's visit. If he is charged \$5 or \$10 for a house call which results in the diagnosis of an acute appendicitis, he is grateful to the doctor. If the diagnosis is of "a virus that

is going around and will clear up in a few days," he may be relieved but he may at the same time be angry with himself for having misjudged his symptoms and incurred needless debt. The next time he thinks twice before calling the doctor, wondering whether he might not better stick it out and save the money toward a coming tonsillectomy for his child. This medical screening by a patient for economic reasons is the antithesis of preventive medicine, and it is a real danger. Only doctors can properly screen medical symptoms. And what about "the forgotten man in medicine, the so-called symptom-free adult"; where does he come in on an indemnity insurance program?

Labor is disturbed over the fact that commercial health insurance and Blue Shield not only fail to fill the bill as far as comprehensive medical care is concerned, but they also fail to pay the bill. This is the other aspect of grave disappointment with the existing situation. Labor is willing and able to pay well for medical care, but it wants to know that this payment is complete, not a partial payment toward an unknown sum. In indemnity insurance programs, fee schedules are often at the basis of this difficulty. Fee schedules are often a token gesture in the right direction but fall short of achieving any sound understanding.

Another financial problem which is a by-product of the commercial insurance and Blue Shield programs is over-hospitalization. Sometimes this unnecessary hospitalization results from the desire to take advantage of insurance coverage in relatively simple situations which might have been handled equally well on an out-patient basis. On other occasions, the hospitalization has become necessary only because early treatment and diagnosis was delayed, for financial reasons. With the constant increase in the cost of hospital care, any comprehensive health program should be concerned with the avoidance of hospitalization through preventive medicine, early detection and treatment, and the easy use of diagnostic facilities on an out-patient basis.

In general, it must be said that indem-

nity insurance coverage falls short on both counts of medical coverage and cost. I know of just one effort to purchase a comprehensive medical expense program through an insurance company. This new approach, which has no precedents to guide it, has been worked out recently for an estimated 500,000 employees of the General Electric Company. This is a substantial departure from traditional insurance plans, and it will be interesting to watch its development. There are no customary "dollar limits" for various medical services, no traditional restrictions as to duration of benefits or individual coverage maximums. The program attacks medical care costs on a broad front, whether they are incurred in or out of the hospital. It provides protection against almost all types of medical expenses, particularly the relatively large ones. The employee pays only a nominal initial amount of his medical expenses, called a "deductible." This is expected to eliminate many small claims and to avoid a substantial amount of clerical work. The deductible is small enough, however, to permit the individual employee to handle the direct expense without undue hardship. This type of insurance, of course, requires that no one take unfair advantage of it—whether employees, the company, the insurance carrier, druggist, hospital, or physician. As Dr. Elmer Hess, ex-President of the American Medical Association, has put it: "Insurance per se does not create new wealth, and . . . is no justification for increasing an otherwise reasonable fee for a professional service."

In describing this General Electric plan to members of the Roanoke Academy of Medicine earlier this year, Dr. B. L. Vosburgh, who is consultant for General Electric's Health Services, had this to say<sup>15</sup>:

"We believe then that physically and mentally healthy employees are able to produce more goods. That is surely good for the company. It is also good for employees because of greater job satisfactions and increased earnings. It is also good for our community doctors because the very program that develops optimum health for employees must necessarily depend upon the increased efforts of community doctors in the fields of preventive and curative medicine. It

is logical to ask, of course, who pays for their added efforts? Employees and the Company both pay. The part employees pay should be more than offset by increased earnings, and the part the Company pays through its new Insurance Plan, which underwrites the lion's share of the cost of serious ills, should be offset by increased productivity and satisfactions in health maintenance. It is readily apparent then that here is an area of activity in which everyone benefits. Isn't that remarkable!"

A number of these examples of prepaid medical care programs which I have mentioned, stem from group practice or group agreement. Does this mean, then, that even though comprehensive medical care on a prepaid basis may be both desirable and feasible, it must by its very nature be handled only by group medical centers? Does this mean that it is a threat to the individual practitioner, either in patient load, or in prestige, or in income, or in an active and stimulating work life? On first appearance it might seem so. But let us look further. A survey of our country's health needs<sup>16</sup> points out that even with optimal use of our medical schools in the production of qualified physicians, we will require something between 22,000 and 45,000 more physicians by 1960, than the predicted supply by that year. There is virtually no source of supply with which this need can be met.

It is impossible to do ourselves out of a rewarding, stimulating and remunerative job—in our lifetimes, and in generations to come. On the contrary, it will take all possible encouragement and expansion and improvement in all possible forms of medical care even to meet our very minimal needs. It is becoming obvious that no one form of medical care will be our answer, nor will any one form of medical care supplant or threaten other forms of care. We need many more general practitioners, many more specialists, many more group medical centers, many more industrial physicians, many more public health workers. Some will prefer solo practice; others will prefer group practice. Some will prefer to work for a salary, others on a fee-for-service basis.

It seems to me that there are three pos-

sible ways for the medical profession to respond to labor's quest for medical care. It can *participate* in it, on a full-time or part-time working basis. It can *cooperate* with it, on a voluntary civic basis. It can *compete* with it and *co-exist* with it. All of these responses are now happening and will continue to happen, and all of them are healthy responses, both for the profession and for the public which it serves.

With these new forms of medical care, however, we need not only this participation, cooperation, and competition on the local level. We also need more integration of these forms of medical care by our state

medical societies, much more support and interest and understanding by the American Medical Association. Above all we need more actual discussion with consumer groups, not third-hand interpretation through the limitations and inadequacies of newspaper and magazine articles that try to speak for us about our individual and group needs.

Medicine is a dynamic discipline in all respects. Therefore in meeting the challenges of a changing world, it will need to adapt its scientific and social attitude to the various collective forces in our society.

(Turn to page 649 for references)

## Management of Breech Delivery\*

Harold S. Morgan, M.D.

LINCOLN, NEBRASKA

*Five hundred instances of breech delivery are reviewed and the low infant mortality rates at Lincoln General Hospital are credited to several basic policies which the author presents.*

THE information contained in this article is a summation of the experiences of the Obstetrical Staff of the Lincoln General Hospital together with some personal observations. Since breech presentation occurs in approximately 3 per cent of all cases and fetal mortality associated with the delivery is reported as ranging from 1.03 to 12 per cent it would seem that the area of breech management might well be considered as one of the focal points in our efforts to reduce peri-natal mortality.

I wonder how many of us reflect on the cause of the breech presentation? Certainly many of the older authorities were concerned; for in dealing with this presentation and the delivery following, they were aware of the increased hazard facing the baby.

\*Presented before the 53rd annual meeting of the Wyoming State Medical Society at Moran, July 1, 1956. From the Department of Obstetrics and Gynecology, Lincoln General Hospital.

In fact, during the late twenties and early thirties medical students were warned that fetal mortality in breech presentation was in the neighborhood of 10 per cent. As a result of this knowledge the leaders in the specialty were speculating as to the etiologic factors causing this so-called "error" in polarity. Commonly accepted as among the predisposing or actual causes of breech position have been prematurity, congenital malformations, contracted pelvis, multiparity, tumors, placenta praevia and hydrocephalus. Schuman stated, "I am firmly convinced that in the great number of cases, the cause of breech presentation is purely accidental." In 1940 Varton said, "What struck me and still impresses me concerning the etiology of breech presentation is that most of these factors which are reported to be causes, seldom occur." Varton in 1945 believed that the reason why breeches persist until term is not to be



sought in factors which prevent the head from engaging, but in those which prevent spontaneous version from taking place and believed that extension of the legs was a prime factor, thus giving the fetus an extended attitude. Weisman believed that prematurity played a definite causal role. By periodic x-ray studies he demonstrated that 24 per cent presented by the breech at the 13th to 22nd week and that this decreased to 8 per cent by the 28th to 30th week. By the 38th to 40th week about 40 per cent undergo spontaneous version. In 1946 Topkins stated the cause of only about 4 per cent of term breech presentations could be accounted for and these were on the basis of gross fetal anomalies, placenta praevia, pelvic tumor and uterine anomalies.

In 1949 Stevenson first advanced his theory of placental implantation in relationship to the presentation of the fetus and in 1950 he elaborated on this theme as it related to breech presentation. Stevenson found two or perhaps three factors that seemed to him important. First, cornual fundal implantation; secondly, parity; and as he states, a third and yet unproven factor, right torsion of the uterus. As a result of his studies he proposed a new obstetric principle:

"The position of the implanted placenta in the near term, or term, human uterus as it indents and alters the ovoid shape of the amniotic sac, determines the polarity of the sac independently of the fixed polarity of the containing uterus. Functionally the fetus accommodates itself to the shape of the sac, the fetal head seeking its smaller pole and thus the placental implantation site has a determining effect on the presentation of the fetus."

We have upon several occasions examined the uterine cavity at the time of Caesarian section for full term breech and have found the placenta to be in one of the cornual locations described by Stevenson. His work establishes in our minds, at least, the probable reason why a fetus may remain in the breech position.

Let us turn now from the area of academic interest to the questions and prob-

lems that all of us must face when we care for a woman in labor whose baby is presenting by breech. The question of fetal mortality is of paramount interest, and a compilation of fetal mortality rates from various clinics brings to light some wide variations.

**TABLE**  
**Fetal Mortality Rate—Gross and Corrected**

	Gross	Corrected
Potter et al .....	17.4	9.6
Hansen .....	11.9	0.8
Cannell and Dodek .....	19.2	6.7
Waters .....	11.2	....
Arnot and Nelson .....	10.0	1.04
Guyer and Heaton .....	31.0	4.5
Danforth and Galloway .....	18.8	....
Morre and Steptoe .....	....	12.8
Meyer .....	13.0	4.7
Dennen and Fisher .....	11.7	8.7
Morton .....	14.8	....
Tompkins .....	4.6	2.7
Arnot and Nelson .....	4.63	1.10
Ware et al .....	5.4	2.7
Arnot and Nelson .....	3.90	1.16
V arwick and Lippsett .....	4.9	1.3
Trites .....	3.6	1.8
Arnot and Nelson .....	2.8	1.03
Seeley .....	6.7	....

Instead of the 10 to 12 per cent fetal mortality, we should be striving for the lower limits of 1 to 1.5 per cent. We have recently published results of a study of 500 consecutive patients delivered by essentially the same group of physicians, all members of the obstetrical department at Lincoln General Hospital. In this study we corrected fetal mortality according to the generally accepted standards, prematurity with weight of 1,550 to 2,499 grams; death of the fetus prior to admission to the hospital, fetal abnormalities incompatible with life and death of the fetus due to an associated placenta praevia or premature separation of the placenta. The gross fetal mortality was 60 per cent and the corrected mortality 1 per cent. In this study there were 18 sections or a rate of 3 per cent.

On the several occasions that I have presented results of our management of breech presentation, the questions invariably asked have to do with measures used to accomplish this low fetal mortality. Among the most common are ones that relate to the place of external version in breech presen-

(Continued on page 603)

tation. I should like to reiterate one point that I made at your forty-fifth annual session. "We do not feel that external version is indicated in the management of breech presentation and in this combined series of 335 consecutive breech deliveries external version was never done." In this later report of 500 cases the same may be said. This procedure is not considered necessary by our staff, nor is it practiced by us. Here we find ourselves in disagreement with other groups who resort to the maneuver. We feel that the low fetal mortality rate obtained in our series could not be improved upon were we to do external versions, and that in fact the inherent dangers of placental separation or entanglement of the cord with resulting fetal embarrassment or death far outweigh any advantage to be gained by substituting the head for the breech.

Next in frequency come questions relating to our requirements for consultation. Some of you may recall that I stated that consultation on all breech deliveries is mandatory in our hospital and not only must the consultant be used in that capacity, but, he is also required to be present and act as an assistant during the delivery of the baby. The assistant exerts fundal pressure while the operator is guiding the breech over the perineum and dealing with the extremities. The consultant-assistant thus maintains flexion of the baby's head as it passes into the pelvis. Here it must be emphasized that such measures, left to an inexperienced intern or to the delivery room nurse, lead only to dire complications. I am well aware of the fact that many doctors in more rural areas do deliveries in the home and that at first glance the use of a consultant might not seem feasible. It is easy to understand this disinclination towards calling another doctor to drive a considerable distance to consult and assist in a breech delivery. Some physicians have also felt that they could not call consultation in a breech case in a hospital without losing face with their patients.

Of late we have been made aware of a change in respect to these two sentiments.

A short time ago, a physician in our state, who practices in a rural community and who had been present at a post-graduate session in which our views on consultation had been delineated, stated emphatically that he had adopted the policy and that he was sure that his patients not only approved, but were grateful for his solicitude. He felt too that he had been able to handle these deliveries with far less mental trauma to both himself and his patient through sharing the responsibility with another competent physician. Team work has paid off in so many instances in our hands that we are convinced that in it lies one of the most important factors in our low fetal mortality rate.

The actual management of the breech is conservative. Prenatal observation of the gravida have provided us with a comprehensive evaluation of the woman, her pelvis and her baby. All patients presenting evidence of a potential disproportion are subjected to x-ray pelvimetry. Bearing in mind the difficulty in accurately determining the size of the fetal head in patients with breech presentations we are inclined to rely on our clinical judgment to determine whether or not trouble will be experienced. Here again our policy of consultation provides us with an opportunity to discuss the pros and cons of the situation and to determine our course of action prior to the onset of labor.

Our obstetrical staff is inclined to favor Caesarean section as the procedure of choice in a primipara of thirty-five or over whose baby is presenting by breech. Caesarean section is also considered favorably in patients who present evidence of relative cephalo-pelvic disproportion. We do not hesitate to section a patient whose labor is complicated by a primary or secondary uterine inertia. We agree with Cox who feels that when the breech remains high in the pelvis during the second stage of labor, vaginal delivery will be fraught with danger for the fetus and abdominal section will be wiser. These remarks may appear to belie my previous statement that our attitude towards the management of breech is conservative. If, however, we note the

3 per cent incidence of Caesarean section, in patients wherein breech presentation was the primary indication, we can conclude that section used according to these concepts is a conservative rather than a radical procedure.

In our scheme of management, awareness of the possibility of a prolapsed cord associated with breech presentation is constantly impressed upon our intern, resident and nursing staff. We regard the prolapsing of a cord as one of the inherent dangers of this presentation, and although it occurred only five times in the 500 cases, babies are still lost because of its occurrence. Our nursing staff is taught to listen for fetal heart tones following the rupture of membranes and if there is a suspicious slowing or irregularity, to promptly place the patient in a knee-chest position while waiting for confirmation by the resident or attending physician.

Approximately 95 per cent of the breech deliveries are accomplished by manual aid as defined by DeLee and Greenhill. Only rarely is the breech broken up and extraction attempted. Our staff has always been in accord with the principles of management enumerated by Hansen. Lately I have referred to these principles as "Hansen's Axioms" and along with our policy of consultation, attribute to them significant influence on our results.

Hansen's Axioms are as follows:

1. Dilatation of the cervix does not become complete until the buttocks are presenting deeply at the introitus.
2. Attempted delivery before complete dilatation is almost certain to result in extension of arms and head with resultant difficulty in delivery.
3. It is natural for force to be applied from above. Application of force from below is not a natural force. Extension of arms, nuchal arms and extension of the head are the results of force applied from below, rather than from above.
4. Manipulation from below, especially if the patient is not deeply anesthetized, will reflexly stimulate tetanic contractions of

the cervix and lower uterine segment. This contraction imprisons the shoulders and delays delivery. It also necessitates increased force which traumatizes mother and baby.

5. Gentleness in all deliveries is of the greatest importance.

In discussions of breech delivery the question of anesthesia is usually brought up for consideration, and here again we of the obstetrical department have developed a unified thinking. In our hands, use of inhalation anesthetics has produced the best results. It is our policy to use analgesia during the first stage of labor and intermittent nitrous oxide and oxygen during the second stage until delivery is imminent. As the breech distends the perineum and appears at the outlet, the proposed episiotomy site is injected with 2 per cent xylocaine and as the anesthetist changes from the nitrous oxide and oxygen mixture to cyclopropane, the episiotomy is performed. We feel that this type of analgesia and anesthesia permits the patient to utilize her uterine contractions and her voluntary bearing down efforts to their maximum degree. By the time that the consultant-assistant has directed the after coming head into the pelvis, the patient is entering the second plane of anesthesia and Piper forceps may be applied when necessary to effect delivery. In an early paper on the use of trichlorethylene in obstetrics I stated that this agent might be of great value in breech deliveries. However, added experience has shown that trichlorethylene does not give sufficient soft tissue relaxation and hence we have abandoned it in favor of the combination of nitrous oxide and oxygen, cyclopropane and local infiltration of the episiotomy site.

As I review the conclusions drawn from the earlier study of breech management presented to this group eight years ago, I find little to change as a result of continued analysis and study. The philosophy of management has not changed. We are more confident than ever that conservative management of the breech, consultation and assistance on all breech deliveries, and judicious use of Caesarean section will effectively reduce fetal mortality.

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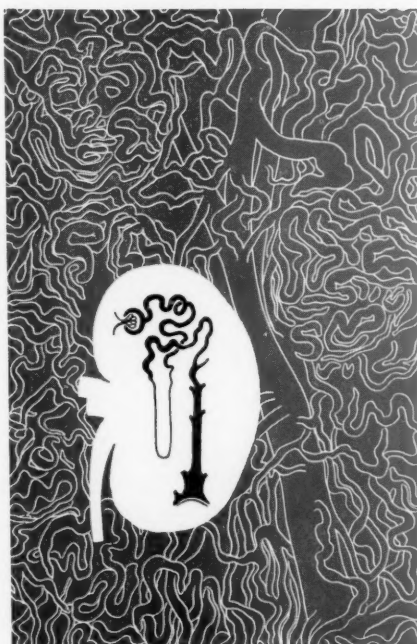
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## The Washington Scene



*A monthly news summary from the nation's capital  
by the Washington Office of the A.M.A.*

Again the Jenkins-Keogh plan is up for consideration in Congress. While there is no assurance it will be passed, or even get out of the House Ways and Means Committee, many sponsors of the legislation this year are united in one organization and are making themselves felt on Capitol Hill.

Briefly, this bill would allow any self-employed person to put a limited portion of his income into a retirement fund without paying income taxes on the money. Taxes would be paid when the money was received as pension or retirement.

Sponsors of the Jenkins-Keogh plan point out that it very definitely is not legislation to give a special tax advantage to one group of people. For one thing, every self-employed person would be eligible, from farmers to doctors and from opera singers to architects. For another, corporations since 1942 have been allowed to put money into retirement funds for their employees without payment of federal taxes on the money; the self-employed merely want the same consideration.

At various times the American Medical Association has led in the campaign for enactment of legislation of this type. Two years ago the House Ways and Means Committee voted to report it out, as part of a broader tax bill, but the committee never actually got around to sending the combined bill to the House floor.

Now the lead is being taken by a newly-formed American Thrift Assembly, or officially the American Thrift Assembly for Ten Million Self-Employed. In addition to the AMA, the new group has the support of American Dental Association, American Bar Association, and a score or more of other national organizations that represent the self-employed.

After the Congressional session was well under way, the ATA surveyed the political-legislative climate and found it favorable for Jenkins-Keogh. Then in early May the Assembly asked its constituent associations to go to work. They were urged to have all members contact the House Ways and Means Committee with requests that the Jenkins-Keogh bill be reported favorably to the House floor. Assembly strategists are confident that if the committee hears from enough of the people who would be affected, it will approve the bill before adjournment.



Then, if there isn't time for House action this year, that step can come next year.

Economy has been the main obstacle in the path of Jenkins-Keogh—the fear on the part of the Treasury Department that passage of the bill would mean a serious loss of income tax revenue. However, the Treasury has never denied that the bill is justified to equalize tax status for the self-employed in relation to corporation employees.

Answering the economy argument, the Assembly makes two points:

First, the set aside funds, invested in the country's economy, would stimulate business and develop far more in new income tax payments than it would cost.

Second, because the self-employed who retain their health rarely retire at any arbitrary age, many of them in the years past 65 would remain in a tax bracket not significantly lower than when they paid into the retirement fund.

\* \* \*

#### Notes:

When Congress votes the money, the new home of the National Library of Medicine will be constructed at Bethesda, Md., near the National Institutes of Health and the Navy Medical Center. This site was selected by the Board of Regents at its second meeting.

\* \* \*

At the request of Speaker Rayburn, the House Interstate and Foreign Commerce Committee has set up a special subcommittee with authority to find out if government agencies are expanding their operations beyond limits intended by Congress. The subcommittee expects to continue its investigations between the sessions of Congress.

\* \* \*

The continuing national health survey is under way. Each month from now on, 140 Census Bureau interviewers will visit 3,000 homes, asking questions about illness and disability. On the basis of the data collected, the Public Health Service will publish national and regional reports on morbidity and mortality.

\* \* \*

Because of his achievements in the advance of mental health, Dr. William C. Menninger has been selected by the U. S. Chamber of Commerce as "one of the great living Americans."

\* \* \*

Because of widespread interest aroused by Senate hearings, there is considerable pressure for action before adjournment on legislation for some form of federal control over union welfare funds. One bill, by Senator Goldwater, would lay down strict procedures, including regular audits.

for JUNE, 1957

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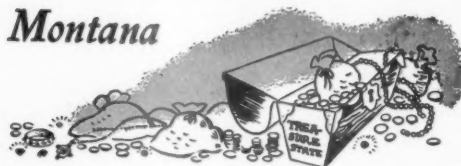
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## ORGANIZATION

### Montana



#### News Briefs

The Veterans Administration has now developed a plan to provide out-patient medical services to certain Veterans Administration beneficiaries requiring long term fee-basis care.

Currently, all fee-basis medical services are customarily authorized in monthly cycles. The new plan will permit authorization during a current fiscal year. One authorization will be issued to the veteran's physician. These cases will be designated as "Category L T Outpatients". For treatment cases selected, the veteran's physician will no longer be required to submit a request each month for authorization to treat Category L T Outpatients. The physician will bill the Veterans Administration at the end of each month for services rendered Category L T Outpatients. Itemized statements of account will be prepared on the physician's own letterhead. Treatment reports need not be submitted more frequently than once every three months unless otherwise determined by the Chief Medical Officer.

#### WESTERN MONTANA MEDICAL AND SURGICAL CONFERENCE

JUNE 29, 1957

Hotel Florence, Missoula, Montana

#### SATURDAY MORNING

9:00—Welcome and introductions: Dr. Leonard Kuffel, moderator; Dr. Eugene Drouillard, President-elect, WMMS.

9:10—"Other Problems in Patients with Cardiac Arrest". Dr. H. M. Blegen, Missoula.

9:25—"Flat Feet". Dr. William J. McDonald, Missoula.

9:40—"The Place of Intubation in the Treatment of Acute Intestinal Obstruction". Dr. John Evert, Missoula.

9:55—"Radiation Therapy of Skin Lesions". Dr. W. R. Christensen, Salt Lake City.

10:45—"Diagnostic Methods in Congenital Heart Disease". Dr. Donald C. Overy, Great Falls.

11:15—Medical Group, Dr. Harold A. Braun, moderator. "The Solitary Pulmonary Nodule". Dr. W. R. Christensen, Salt Lake City.

ROCKY MOUNTAIN MEDICAL JOURNAL

11:15—**Surgical Group**, Dr. James W. Quinn, moderator. "Surgical Treatment of Gastric and Duodenal Ulcers". Dr. Lester H. Dragstedt, Chicago. Motion Picture, "Vagotomy Technique."

#### SATURDAY AFTERNOON

1:00—"Experiences with Secondary Biliary Tract Surgery". Dr. C. R. Svore, Missoula.

1:15—"Current Trends in Anesthesiology". Dr. Robert B. Bean, Great Falls.

1:40—"New Light on the Pathogenesis of Gastric and Duodenal Ulcer". Dr. Lester R. Dragstedt, Chicago.

2:35—Recess.

2:45—"Some Considerations in the Treatment of Carcinoma of the Breast". Dr. Leonard W. Brewer, Missoula.

3:00—"Radiation Hazards in the Physician's Office". Dr. W. R. Christensen, Salt Lake City.

3:20—"Surgical Methods for the Relief of Intractable Pain". Dr. Alexander C. Johnson, Great Falls.

5:30—Cocktail Hour followed by a dinner dance, Governor's Room.

The program has been authorized for eight hours of credit by the American Academy of General Practice. Visiting wives will be entertained during the afternoon by the Women's Auxiliary.

#### PROCEEDINGS OF THE HOUSE OF DELEGATES MONTANA MEDICAL ASSOCIATION TENTH INTERIM SESSION MARCH 30, 1957—HELENA

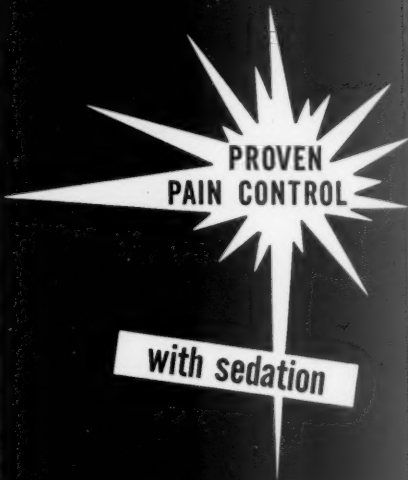
The Tenth Interim Session of the House of Delegates of the Montana Medical Association was called to order by Edward S. Murphy, M.D., President, at 9:00 a.m. in the ballroom of the Placer Hotel, Helena.

Following the roll call of delegates, the Secretary, T. R. Vye, M.D., announced that a quorum was present.

It was moved and seconded that George D. Waller, M.D., be seated as a delegate from the Northcentral Montana Medical Society; that W. H. Sippel, M.D., be seated as a delegate from the Gallatin County Medical Society; that H. J. Sannan, M.D., be seated as a delegate from the Silver Bow County Medical Society. These motions were carried.

It was regularly moved, seconded and carried that the reading of the minutes of the 78th Annual Meeting, held in Great Falls, September 13-15, 1956, be dispensed with inasmuch as these minutes were published in the December, 1956, issue of the Rocky Mountain Medical Journal. The minutes of the Annual Meeting held in Great Falls, September 13-15, 1956, were approved as

for JUNE, 1957




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published in the Rocky Mountain Medical Journal.

Raymond F. Peterson, M.D., delegate to the American Medical Association, reported at length upon the actions of the House of Delegates of that Association at its meeting in Seattle, Washington. The report of the delegate was referred to Reference Committee C for study.

**SECRETARY-TREASURER'S REPORT**

T. R. Vye, M.D., read the following report of the Secretary-Treasurer which was referred to Reference Committee B by President Murphy for study:

A strong State Medical Association is vital to each component society and an understanding, cooperating physician is a vital cog in the wheel that turns for every necessary advancement. Your Association attempts to safeguard the basic freedoms of medical practice which are fundamental to good medical care. These principles are the patients' right to choose their own physician and the physicians' right to accept or reject any patient, as well as their common right to confidential relationships. Indifference and apathy can be fatal but a united front can be a very powerful force. The late President Roosevelt once said, "Give me control of the small segment that practices medicine and I will, in a large measure, control the thinking and actions of the American public."

The recent session of the Montana legislature clearly demonstrates the truth of the above statement and as Secretary, I wish to take this opportunity first, to thank our Legislative Committee and Mr. Hegland, our Executive Secretary, for their skillful and untiring efforts in behalf of the medical profession, and second, to thank every member of this Association who responded so nobly to their requests for assistance. The Woman's Auxiliary to the Montana Medical Association deserves special commendation for its work on behalf of the profession. Our working partners really did much of the detail work and without them more of our own time would have been consumed in letter writing, telephone calls, etc. May I also take this opportunity to express the appreciation of the officers to the organizations such as the Montana Hospital Association and the Public Health League of Montana, all of whom helped our cause. A summary of the actions of the Legislative Assembly will, no doubt, be reported to this House by your Legislative Committee.

**Medicare**

The Medicare program and its implementation in cooperation with Montana Physicians' Service, as fiscal agent, has taken considerable time of your Secretary and the Executive Secretary. Details of the Medicare program and the work of the Negotiating Committee will be included in the report of the Executive Committee to this House.

**A.M.A. Meeting**

The Clinical Session of the American Medical Association held in Seattle, November 27-30, was well attended by Montana physi-

cians. Among the officers of your Association present were: President Murphy, President-Elect Layne, Past President Malee, Assistant Secretary Willis, and your Secretary. Dr. Layne and a number of other Montana physicians participated in the scientific program of the Session.

#### Medical Journal

No representative of your Association was able to be present at the meeting of the Editorial Board of the Rocky Mountain Medical Journal, our official publication, which was held in Denver during February. Because of the legislative session and because of conflicts with other meetings, it was just impossible for any representative of this Association to attend this Editorial Board meeting.

#### Committees

As your Secretary, I am happy to report that committee chairmen have been active during the last six months and many have held several committee meetings. Dr. Brewer and the members of his Economic Committee have spent many hours revising the Average Fee Schedule of this Association, its nomenclature, and adjusting the fees in an effort that they more realistically reflect current economics. The Fee Schedule of the Industrial Accident Board has been studied in detail by this Committee and with the cooperation of the Board, it is anticipated that a new schedule will soon be instituted.

#### Membership

The final review of the tabulation of the members of this Association for 1956 indicates that there were 522 active members, 42 inactive members and seven honorary members of this Association for that year. We anticipate that during the year 1957, the number of active members in good standing will increase somewhat. As of March 21, 434 members had remitted dues for 1957. This is somewhat more than had remitted dues at this date a year ago.

#### Finances

Your Association, I am happy to report, is in a comparatively strong position financially. It has funds of slightly over \$15,000 invested in United States Government securities, \$8,500 in an interest-drawing savings account and as of December 31, 1956, a cash balance in its checking account of slightly over \$5,000. Your Secretary-Treasurer, earlier this year, presented a proposed budget of income and expense to the Executive Committee for the year 1957. This budget was approved by the Executive Committee and it is anticipated that your Association will operate within its income during the year 1957.

T. R. Vye, M.D., Secretary, then read the following reports of the Executive Committee, which were referred to Reference Committee B for study:

#### EXECUTIVE COMMITTEE

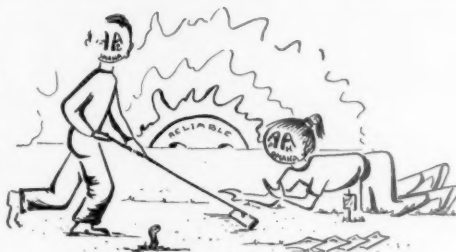
Since the last report of the Executive Committee to this House of Delegates, it has met upon three different occasions to transact necessary and important business of the Association.

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At the first of these meetings, the Executive Committee, in cooperation with President Murphy, selected and appointed the personnel of all of the standing and special committees of this Association for the current administrative year. In an effort to decrease the number of special committees of the Association, the Executive Committee agreed to abolish the special Committee on Veterans Affairs and the Polio Advisory Committee and to assign the duties of these groups to regular standing committees.

### Journal Editor Resigns

Following the close of the Annual Meeting in September, Raymond F. Peterson, M.D., of Butte, tendered his resignation as scientific editor for Montana of the Rocky Mountain Medical Journal. Dr. Peterson served very capably and with distinction, as the scientific editor of this Association to the Rocky Mountain Medical Journal, for a number of years so it was with regret that his resignation was accepted. W. A. Armstrong, M.D., of Billings, was named scientific editor for Montana to the Journal to succeed Dr. Peterson.

### A.M.A. Meeting

Members of the House of Delegates will recall that the 1956 Clinical Session of the A.M.A. was held in Seattle, Washington, late in November. Your Association was invited by the King County Medical Society and the Washington State Medical Association to be a co-host at this meeting and to participate, financially, in the entertainment of the A.M.A. House of Delegates and of other physicians attending the Clinical Session. Your Association contributed the sum of \$275 to the financing of the Clinical Session and supplied, through the courtesy of President Murphy, a substantial quantity of smoked buffalo meat which was served at a reception of the members of the House of Delegates of the A.M.A.

### E. M. Gans, M.D., Honored

One of the members of the Montana Medical Association, E. M. Gans, M.D., was highly honored, and deservedly so, by the House of Delegates of the A.M.A. when it elected him as the General Practitioner of the Year. Dr. Gans, as the recipient of this annual award, brought honor to himself and much glory to Montana. His election received much favorable publicity throughout the nation in the press, radio and television media.

### Medicare Contract

In accordance with the authority granted the Executive Committee to name a special committee to negotiate a contract with the federal government to provide certain medical care to dependents of the uniformed services, such a committee did meet with representatives of the Army in Washington, D. C., early in November. The Committee negotiated and signed a contract including a schedule of allowances to provide the authorized services to these dependents in Montana. All Montana physicians, early in December, received a copy of the schedule of allowances and the general provisions of the agreement of your Association with the Department of the Army. While the schedule of allowances is a maximum schedule for the given medical and surgical procedures,



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\*Ferguson, J. T., and Linn, F. V. Z.: Antibiotic Med. & Clin. Therapy 3:329, 1956.



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both the members of your Negotiating Committee and of your Executive Committee are of the opinion that it is an equitable schedule for this State. Physicians are reminded that this is a maximum schedule of allowances and are urged to charge only their customary fee for all services rendered to military dependents provided it is not greater than the maximum fee outlined in the schedule of allowances.

#### **Contract Re-negotiation**

The contract of this Association with the government to provide the agreed services to dependents of the uniformed services will expire on June 30, 1957. It is anticipated, however, that the Army will approve extension of the present contract in its existing form by correspondence and that during 1958, probably in August, it will re-negotiate its contract with your Association. The extension of this contract will permit your Association, as the contracting agent, and M.P.S., as the fiscal agent of this program, to accumulate sufficient experience to resolve any difficulties that may become apparent in the administration and operation of this program, so that they may be properly considered when it is re-negotiated.

#### **Review of Claims**

Under the contract negotiated with the government, your Association becomes responsible for determining an appropriate method for the review of claims for fees greater than those in the schedule of allowances, for a method of approving fees for those procedures not included in the schedule of allowances but which are submitted by the attending physician or surgeon by report, and for developing a method for the review and consideration of all cases involving complaints, differences of professional opinion and misunderstandings, as well as a method by which this Association will advise and assist the government on questions within the scope of this Medicare program. It was determined by the Executive Committee that these responsibilities should, if possible, be assumed by the appropriate and already existing committees of this Association or of M.P.S. The Executive Committee, therefore, voted to request the Claims Committee of M.P.S. to serve as a committee of this Association to review claims for fees greater than those in the schedule of allowances and for determining fees for procedures not included in the schedule but which are submitted by the attending physician by report. The Mediation Committee of your Association was designated to consider those cases involving complaints, differences of opinion and misunderstanding. The Negotiating Committee, consisting of L. W. Brewer, M.D., T. R. Vye, M.D., and Harold W. Fuller, M.D., will continue to serve in this capacity and will advise and assist the government on questions within the scope of this program.

#### **Additional Reference Committees**

Several years ago, upon the suggestion of your Executive Committee, a system of reference committees was initiated to review and recommend action upon the reports of the various standing and special committees of this Association to the House of Delegates. Under this system, as originally pro-

posed by the Executive Committee, three reference committees are now serving and are responsible for the review of the reports of the many standing and special committees. In the opinion of your Executive Committee, the business of the House of Delegates may be more greatly facilitated and the work of the reference committees more effective, if the number of such committees is increased and if the committee is more adequately named to designate its duties. Therefore, it is the recommendation of your Executive Committee that, effective with the Annual Meeting in 1957, the number of reference committees be increased from three to seven and that these committees be designated as follows:

1. Reference Committee on Officers, Meetings, and Administration.
2. Reference Committee on Legal Affairs and Professional Relations.
3. Reference Committee on Legislation and Public Relations.
4. Reference Committee on Resolutions and New Business.
5. Reference Committee on Affiliated Organizations.
6. Reference Committee on Health and Welfare.
7. Reference Committee on Scientific Work.

Each of the new reference committees, which will be composed of three members of this Association, will be responsible for the review of only six or eight reports of standing or special committees. Each reference committee will be able to more thoroughly consider the reports for which it is responsible and may, if necessary, conduct hearings upon any controversial issue presented to it by the committee.

#### **Delegates Meetings**

In its consideration of the schedule of scientific sessions and of meetings of the House of Delegates during the Annual Meeting each year, the Executive Committee concluded that a more desirable schedule may be planned if the first session of the House of Delegates is scheduled at approximately 8:30 a.m. on the first day of the Annual Meeting rather than during the late afternoon. It is the recommendation of your Executive Committee that this proposal be adopted for the 1957 Annual Meeting so that the first session of the House of Delegates will be scheduled between the hours of 8:30 a.m. and 10:30 a.m. on Thursday morning, September 19. Other sessions of the House of Delegates will be scheduled at approximately 3:30 p.m. on Friday, September 20, and at approximately 1:30 p.m. on Saturday, September 21. Scientific sessions at the Annual Meeting will convene at approximately 11:00 a.m. on the opening day, Thursday, September 19, and will convene on Friday and Saturday as in previous years.

#### **Professional Liability Insurance**

During recent weeks, members of your Executive Committee have been informed that certain insurance agencies are contacting component medical societies of this Association in an effort to establish group professional liability insurance plans within the component societies. While such local plans probably offer the physician, as a member

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of his component medical society, a temporary premium reduction, it is the opinion of your Executive Committee, that it is inadvisable for any component society of this Association to adopt such a plan unless it has been reviewed, studied and approved by the Executive Committee or another appropriate committee of the State Association. It is recognized that the premiums for professional liability insurance have increased materially during recent years but studies by the appropriate committee of your Association indicate that the present premium structure of the liability underwriters of this type of insurance is based upon its losses in this State. The Executive Committee of your Association is firmly convinced that professional liability insurance for the members of this Association should be underwritten only by one of the major insurance companies in this field, which through past experience, has proven reliable. Independent studies of this type of insurance during recent months have indicated that while some of the smaller underwriters may offer a lower premium in the beginning, this premium is either increased materially within a few years or the smaller underwriters, because of unrealistic premium structures, have gone bankrupt or have withdrawn from writing this type of business.

#### **Medical Care of the Indigent**

At a meeting of the Executive Committee on Thursday evening, March 28, members of your Executive Committee discussed the proposals of the State Board of Welfare for cooperation with county commissioners to enable the commissioners to use matching federal funds to provide medical and hospital care in four categories of public assistance. This program of public assistance is also discussed in the report of the Economic Committee. Your Executive Committee, however, would like to point out that there is available to component societies upon request, certain valuable information about medical care for the indigent through the Council on Medical Service of the American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois. Cascade County Medical Society also operated a plan for several years to provide medical and hospital care to indigent county patients and as a result of this program, has accumulated much valuable information and data about the operation of such a program. Your Executive Committee wishes to recommend that the House of Delegates of this Association authorize it to request that the Cascade County Medical Society appoint a special committee to serve as consultants and to be available to committees of any county medical society in implementing their plans for this new county welfare program. Your Committee urges that county societies avail themselves of the advice and counsel of the special committee which we expect the Cascade County Medical Society to appoint. Your Executive Committee also recommends that each county society and the physicians in each county develop a plan acceptable to the profession and that they negotiate with the county commissioners to obtain their approval of a plan acceptable to the profession. The Executive Committee strongly urges that all county medical societies

in Montana counties make every possible effort to promote and agree upon a plan with the county commissioners that will provide free choice of physician to the welfare patients. The principle of free choice, in the opinion of your Executive Committee, cannot be over-emphasized and it urges that this principle and the accepted patient-physician relationship be strongly safeguarded.

#### **Average Fee Schedule**

In the development of any plan to provide medical and hospital care to indigent patients in any Montana county, it is of utmost importance that sound actuarial information be obtained and that the welfare plan be based upon authoritative statistical information. Your Executive Committee believes that any plan to provide medical and hospital services to the indigent must be based on a realistic fee schedule and that when such plans include provisions for referral of a patient to another physician for consultation, the fee for such consultation services must be determined at 100 per cent of the Average Fee Schedule of this Association. Incidentally, it is anticipated by your Executive Committee that the recommendation of the Economic Committee of this Association to adopt a new Average Fee Schedule will be approved at least in principle and that the new Average Fee Schedule will be relatively higher than the one adopted by the House of Delegates of this Association in 1952.

#### **Free Choice of Physician**

Your Executive Committee recently received a communication from the Colorado State Medical Society in which it was suggested that the Montana Medical Association support a resolution adopted by Colorado upon the principle of free choice of physician. The Colorado State Medical Society expects to present a resolution for consideration to the House of Delegates of the American Medical Association and is anxious to obtain support for this resolution from as many states as possible, especially in the Rocky Mountain area. Your Executive Committee heartily approves of the principle of free choice and recommends that the House of Delegates adopt the following resolutions:

WHEREAS, We firmly believe in the principle of the free choice of physician to be one of the inherent rights and liberties of any American citizen.

1. We recommend that this House of Delegates go on record as opposing any form of panel practice or other patient-doctor relationship which does not abide by this long-established principle of the free choice of physician as defined by the Principles of Ethics of the American Medical Association.

2. We direct that our Delegate to the American Medical Association, by resolution and all other means available to him, attempt to get a strong and dynamic policy on a national basis for organized medicine to remain united and firm in dealing with medical plans which do not guarantee the free choice of physician.

We also direct our Delegate to the American Medical Association to do everything in his power to gain the support of other state delegations to the A.M.A. to support such a policy.



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3. We also realize the deep responsibility of each doctor and of organized medicine to the patient's welfare. This tenet must be uppermost at all times. In carrying out the principle of free choice of doctors we must at all times do what is best for the patient.

4. We further recommend that this Society strongly disapprove of any physician who takes part in any form of medical practice where the principle of free choice of physician does not prevail.

#### **Study of Hospital Regulations**

Your Executive Committee learned recently that the Montana Hospital Association contemplates study of the Montana hospital laws between now and the 1959 session of the legislature. Any revision in these hospital laws will be of interest to the medical profession and may be of primary concern to it. Because of this possibility and because of the events during the 1957 legislative session, it is the opinion of your Executive Committee and it so recommends to the House of Delegates, that this Association, through the appropriate standing or special committees, undertake and initiate the establishment of a liaison committee including representatives of the Montana State Dental Association, the Montana Hospital Association, the Montana State Nurses Association, the Montana State Practical Nurses Association, physical therapists and other interested health groups for the purpose of reviewing the need and, if desirable, for re-writing both the Medical Practice Act and the Hospital Practice Act to implement proper legislation to be presented in 1959 to the legislature for introduction as companion bills. Legislation such as that proposed above, should, of course, be approved by as many of the interested health groups as possible. Your Executive Committee is aware of the possible dangers inherent in the introduction of such legislation but it is convinced that if the proposed legislation is properly drafted and explained to the representatives of all of the health groups concerned and if these groups will properly present it to the members of the House and Senate prior to the opening of the next legislative session, it may be enacted as proposed and without damaging amendments. Such a program, however, will require the full cooperation and support of every member of the medical profession.

#### **SUPPLEMENTAL REPORT**

T. R. Vye, M.D., Secretary, then read the following supplemental report of the Executive Committee recommending the adoption of certain amendments to the By-Laws of the Association. This supplemental report was referred for study to Reference Committee C:

##### **Associate Membership**

During recent months, the Secretary and the Executive Office of your Association have received inquiries about membership in the Association from physicians who are employed by the federal government in the United States Public Health Service, the Veterans Administration, Bureau of Indian Affairs, etc. Many of the physicians thus employed have expressed an interest in membership in the Association but are not currently eligible for such membership be-

cause, in most instances, they are not licensed to practice medicine in Montana. Because of the interest of these physicians employed by the government in Association membership and because there may be other physicians similarly employed by other agencies who may be anxious to become members of this Association, your Executive Committee recommends the adoption of the following proposal to amend the By-Laws of this Association to provide an associate membership classification at reduced dues for these physicians:

Amend Section 2 of Article VI by adding the following paragraph:

(f) Physicians who are not licensed to practice medicine in Montana but who are otherwise eligible for membership and are licensed to practice in another state may, upon the recommendation of the component society in which jurisdiction they reside, become associate members of this Association if they are employed by the federal government or by a civilian agency in a type of medical practice or in an allied medical activity which does not require licensure. Such associate members shall maintain membership in good standing in the American Medical Association either through a state medical association or through the component society of the government service in which they are employed. They shall also remit annual dues of 50 per cent of the amount established by the House of Delegates as dues for active membership.

Amend Section 5 of Article VI to read as follows:

Section 5. Classification: Membership in this Association shall be classified as active, inactive, honorary and associate.

Amend Section 5 of Article VI by adding the following paragraph:

(d) Associate members: Associate members shall be those physicians licensed to practice in another state but not in Montana, who are legally engaged in the practice of medicine in Montana or who are employed in an allied medical activity which does not require licensure. Such physicians may be elected to this classification upon the recommendation of the component society in which jurisdiction they reside and/or practice. They shall be members of the American Medical Association and shall remit the annual dues and assessments properly established for this classification. Associate members shall have all of the rights and privileges of active members except the right to vote and hold office.

#### **AUDIT COMMITTEE REPORT**

In the absence of W. R. McElwee, M.D., Chairman of the Auditing Committee, Secretary Vye read the following report of this Committee:

Your Auditing Committee has reviewed and studied the audit of the books of your Association by certified public accountants. The books were found to be in order and all funds of the Association properly accounted and entered in the financial records.

It was regularly moved, seconded and carried that this report be adopted.

#### **DECEASED PHYSICIANS**

Leonard W. Brewer, M.D., Chairman of the Committee on Necrology and History of Medi-

(Continued on page 621)

(Continued from page 618)

cine, reported the death of the following Montana physicians since the last meeting of this House of Delegates:

Rosannah Russell, Great Falls, September 27, 1956.

Carl E. Anderson, Great Falls, October 22, 1956.

John M. Dimon, Polson, November 5, 1956.

Albert John Brasset, Kalispell, December 27, 1956.

Burton K. Kilbourne, Hardin, January 20, 1957.

Edmund Stephen McMahon, Butte, March 27, 1957.

Members of the House of Delegates stood for a moment of silence in memory of these deceased physicians.

#### HISTORY OF MONTANA MEDICINE

Dr. Brewer then read the following report about the history of medicine which was referred to Reference Committee B for study:

It had been hoped that "Medicine in the Making of Montana," which is to be the title of an historical volume long in preparation by your Committee, would be available in manuscript form by the time of this meeting. Once again, however, death has postponed the completion of this work. Paul Phillips, Ph.D., retired professor of history of Montana State University, several years ago undertook the task of re-writing and editing the manuscript of this history. In December, 1956, however, he died before his editorial task was quite completed.

Since his death the manuscript has been circulated and is still being circulated among members of this Association for criticism and comment. Circulation of this manuscript will continue until those particularly interested in the project have had an opportunity to voice their opinions about it. Final revision of the manuscript is contemplated and with the approval of the House of Delegates, this Committee will continue until the volume is ready for publication. It is understood by the Committee that final commitments for publication, by prior instruction of this House, will be contingent upon consultation and approval by the Executive Committee.

Your Committee on History made no specific commitment with Dr. Phillips about a fee for his editorial work, but it had been tentatively agreed that a fee of \$1,000 would be an appropriate sum for his services. Your Committee recommends that the widow of Dr. Phillips be compensated on a proportionate basis for the work completed by her husband.

Roy V. Morledge, M.D., Chairman of the Resolutions Committee, introduced resolutions upon the following subjects for the consideration of the House of Delegates:

(1) Meeting dates of specialty groups.

(2) Initiation of a campaign to promote the use of polio vaccine.

for JUNE, 1957

(3) Conferring honorary membership upon O. A. Kenck, D.D.S., Augusta, Montana.

H. M. Clemmons, M.D., presented a resolution upon rehabilitation and read an explanatory statement about his aims and purposes in presenting this resolution.

The resolutions presented by the Committee and by Dr. Clemmons were referred to Reference Committee C for study by President Murphy.

#### REFERENCE COMMITTEE A REPORT

The following report was presented by F. D. Hurd, M.D., Chairman:

Reference Committee A was responsible for the review and study of the reports of the various scientific committees of this Association. Five of these committees, namely, the Interprofessional Relations Committee, the Industrial Welfare Committee, the Committee on Hospital Relations, the Committee on Blood and the Committee on Mental Hygiene, had no report to present at this Session. Reference Committee A would like to impress upon the chairmen of all committees the importance of submitting reports and would like to urge all of the scientific committees of the Association to plan committee meetings between now and the Annual Meeting in Missoula during September.

Six of the scientific committees of this Association submitted reports of their activities but none of these committees presented any recommendations for action by the House of Delegates. Inasmuch as some of these reports contain information of interest and value to the House of Delegates, your Reference Committee presents the following summary of each of them:

##### Arthritis and Rheumatism Committee

The Arthritis and Rheumatism Committee, under the chairmanship of Ralph H. Biehn, M.D., continues its cooperation with the Rocky Mountain Chapter of the National Foundation. It is distributing a bulletin about the activities of the National Foundation and research development to Montana arthritics and is mailing scientific information on rheumatic diseases to Montana physicians upon request. While this Committee has made some efforts to organize local chapters in Montana and to raise funds for the work of the Foundation, its success has been only minimal. It becomes increasingly apparent that the national Foundation should employ a lay representative to coordinate the work of the Committee and the local chapters in the State. This project, however, is a problem of the Rocky Mountain Chapter and the National Foundation.

##### Public Health Committee

The Public Health Committee, under the chairmanship of John A. Layne, M.D., has encouraged all component societies of this Association to develop a program to stimulate polio immunization in each of the counties within the jurisdiction of these societies, upon the suggestion of the American Medical Association. The Committee proposes that component societies cooperate with other interested health groups, State Board of Health and local chapters of the National Foundation for Infantile Paralysis,

in developing a local program that will best serve the community and the members of the medical profession.

#### **Cancer Committee**

The Cancer Committee, under the chairmanship of H. H. James, M.D., outlined its activities and commented briefly upon the retirement of its Executive Vice President, Mrs. H. W. Peterson. The Cancer Committee, serving as a member of the Board of Directors of the Montana Division of the American Cancer Society, accepted Mrs. Peterson's resignation at its October meeting but voted to continue her regular salary until January 1, 1957, after which it voted \$150 monthly retirement benefit for the current year. The Committee proposed that future members of the Board of the Montana Division reconsider this retirement benefit annually.

#### **Maternal and Child Welfare Committee**

The Maternal and Child Welfare Committee, under the chairmanship of C. W. Lawson, M.D., reported that it had reviewed the Maternity Nursing Manual in detail and that it has developed a prenatal diet check list which, it is expected, will be ready for distribution in the near future. The Committee plans to present a postgraduate institute for maternal and newborn care in Helena, June 9-12. The objective of this institute will be to integrate the work of hospital nurses, public health nurses and physicians in utilizing new knowledge for improved care of mothers and the newborn. Detailed information about this institute, it is expected, will be mailed to all Montana physicians well in advance. This Committee indicated in its report, that during 1956 there were only two maternal deaths and over 10,700 births. This record, the Committee felt, was the best ever recorded for Montana and ranks near the top in comparison with figures of other states.

#### **Rheumatic Fever and Heart Committee**

The Rheumatic Fever and Heart Committee and its Subcommittee on the Cardiac Diagnostic Center, under the chairmanship of John S. Gilson, M.D., submitted a tentative plan for the extension of the facilities of the Rheumatic Fever and Heart Diagnostic Center in Great Falls. This Committee, after further study of this plan, expects to submit it to the next meeting of the House of Delegates for consideration.

#### **Rural Health Committee**

The Rural Health Committee, under the chairmanship of B. C. Farrand, M.D., in its report announced that it will hold a joint meeting with the Montana Public Health Association in Havre, April 26-27. The Committee has invited a representative of the Bureau of Health Education of the American Medical Association to speak at this meeting. The Committee urges that physicians plan to attend this meeting and participate actively in its discussions.

Dr. Hurd moved approval of this portion of the report of the Reference Committee. This motion was seconded and carried.

#### **Committee on Aging**

The Committee on Aging, under the chairmanship of David Gregory, M.D., indicated

that, in its opinion, the most critical problems of aging in Montana evolved about the following:

1. The sociological-economic problem of the physical care of the aged and chronically ill.

(a) The present facilities for institutional care are inadequate as to quantity, and, too often, as to quality. We feel that there is a need for greater stress on individual living units for elderly couples with minimum house-keeping facilities, for cooperative share-the-work type housekeeping units, and a greater need to tailor the facilities to allow better separation of the chronically ill from the ambulatory aged, capable of self-help, and those requiring minimum supervisory care.

(b) While tax supported old folks homes, as well as individually run homes for the aged, are doing much of the present job, too often the former is subjected to competitive bidding by the operators, while the latter does not have the long term continuity of management to maintain reliable quality over a long period of years. The present move of several churches, through their boards of charity, into this field can only be heartily commended.

2. Medical care of the aged and chronically ill evolves around:

(a) Private patients paying for their own care out of retirement funds and savings, on a full fee, or, more usually, a reduced fee schedule.

(b) Care by the County Welfare departments of the so-called medical indigents, assisted by matching federal funds.

(c) Medical care of social security pensioners, who now total more than twenty-five thousand in Montana, and more than six million in the United States. There is increasing sentiment for the federal government to underwrite some form of medical care. It is only a matter of time until federal medical care for social security recipients will become a law unless the doctors promptly and adequately meet this challenge.

3. The rehabilitation of the aged and chronically ill would save many times over the cost in daily care and construction of facilities, as well as prevent the terrific wastage of talent that is now occurring in the aged. The increasing demand for compulsory retirement at 65 pushes the elderly persons out of the labor market, and denies them self-help, earning power, independence, productivity, and the proud ability to keep alert, instead of being dependent and pensioned, and discarded. Retirement policies must be better scaled to the medical age of the person rather than the calendar age. We also believe that the rehabilitation will be better met by more diversified custodial care of the aged closer to their own environment.

The Committee proposed to conduct a survey of the custodial care of the aged and chronically ill in Montana, centered about the State Hospital in Warm Springs, the many and varied nursing homes in Montana and the general hospitals, especially those in smaller communities, and it recommends that such a survey be authorized by the House of Delegates. Your Reference Committee concurs in this recommendation of the Committee on Aging.

Dr. Hurd moved the adoption of this portion of the Reference Committee report. This motion was seconded and carried.

### **Fracture and Orthopedic Committee**

The Fracture and Orthopedic Committee, under the chairmanship of Charles F. Honeycutt, M.D., reported that the Orthopedic Consultation Service at the Montana State Tuberculosis Sanitarium has been operating satisfactorily and that a number of qualified orthopedists are participating in this consultation service on a rotating basis. The Committee has also considered plans to co-operate closely with the Division of Child Health Service of the State Board of Health in its program for crippled children. The Committee also plans to develop a series of postgraduate lectures for meetings of county medical societies to improve fracture and orthopedic care and to develop a referral system to assist the family physician in his supervision of the follow-up care after the discharge of crippled children from the hospital. This Committee, in its reports, recommended that the Division of Child Health Services be requested to increase its reimbursement to orthopedists for office calls from \$2 to \$3. Your Reference Committee approves of this proposal in principle and recommends that it be endorsed by the House of Delegates.

Dr. Hurd moved that this portion of the report of the Reference Committee be adopted. This motion was seconded and carried.

### **Tuberculosis Committee**

The Tuberculosis Committee, under the chairmanship of Frank I. Terrill, M.D., reported that in the opinion of the Committee, legislation to regulate recalcitrant tuberculosis patients was not necessary inasmuch as the State Board of Health already has sufficient power under the law to enforce quarantine of such patients. The Tuberculosis Committee also reported that it had reviewed the pilot skin testing program which was conducted in Anaconda and it recommended additional pilot programs be conducted in selected areas. Your Reference Committee approves this recommendation and suggests its adoption by the House.

Dr. Hurd moved the adoption of this portion of the Reference Committee report. This motion was seconded and carried.

### **Food Handler X-rays**

The Tuberculosis Committee also recommended that the House of Delegates request the State Board of Health, in the future, not to license restaurants or other eating establishments unless the personnel handling food have had a chest x-ray prior to employment. Your Reference Committee is of the opinion that this proposal will be beneficial to the health of Montana citizens and recommends its adoption by the House.

Dr. Hurd moved the adoption of this portion of the Reference Committee report. This motion was seconded but after discussion, failed to carry because of the difficulties involved in the enforcement of such a policy and because of its impracticality.

### **Teacher Chest X-rays**

The report of the Tuberculosis Committee suggested that this House of Delegates suggest to the State Board of Education that

it require every teacher in the public schools to have a chest x-ray annually. Your Reference Committee concurs in this recommendation and recommends its adoption by the House.

Dr. Hurd moved the approval of this portion of the report of the Reference Committee. The motion was seconded. During the discussion of the motion it was pointed out that some of the school districts have already initiated a plan that its school teachers have an annual chest x-ray. It was also suggested that the proposal should probably be more specific since it did raise some question about enforcement and cost. Following some further discussion, it was regularly moved and seconded that the recommendation of the Tuberculosis Committee be amended to include only those teachers who have not previously received a chest x-ray and teachers who have had positive skin tests. This amendment was voted upon and carried, after which the original question was voted upon and also carried.

### **Annual Chest X-ray**

The Tuberculosis Committee also proposed in its report that the House of Delegates of this Association recommend that each of the component medical societies be encouraged to establish a program in each Montana county under which all hospital employees receive an annual chest x-ray. Your Reference Committee concurs in this proposal and recommends its adoption by the House of Delegates.

Dr. Hurd moved the adoption of this portion of the report of the Reference Committee. This motion was seconded but during the discussion, it was suggested that the resolution be amended to include only those employees who have not previously received a chest x-ray and those who have had positive skin tests. This amendment was voted upon and carried, after which the original motion was voted upon and carried.

As Chairman of Reference Committee A, Dr. Hurd expressed his appreciation to the other members of his Committee and to the chairmen of the various Association committees. Dr. Hurd then moved that the report of Reference Committee A as a whole be adopted as amended. This motion was seconded and carried.

### **LEGISLATIVE COMMITTEE**

President Murphy recognized Amos R. Little, Jr., M.D., Chairman of the Legislative Committee, who desired to present the following supplemental verbal report:

The committee report file of each delegate includes a report of the activities of your Legislative Committee during the recent legislative session. As Chairman of this Committee, however, I would like to emphasize that the success of your Legislative Committee, during the recent session, was the result of the cooperative efforts of a large number of individuals and of various allied health organizations. Your Legislative

(Continued on page 626)



# A chron

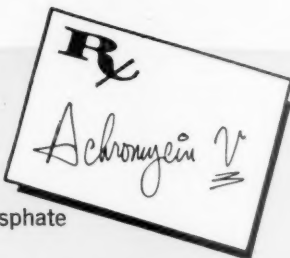


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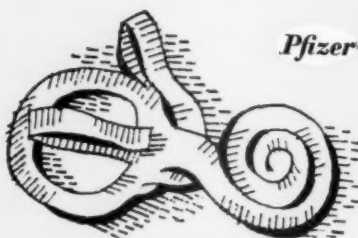
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(Continued from page 623)

Committee, therefore, wishes to submit the following resolution for the consideration of this House:

WHEREAS, The recent 35th Legislative Assembly presented many problems of concern to the members of the Montana Medical Association and the medical profession of Montana, and

WHEREAS, The untiring combined effort of many organizations and individuals was necessary to enable our legislators to learn and to know the position of the medical profession and of this Association upon many of the legislative problems; now therefore be it

RESOLVED, That the House of Delegates of the Montana Medical Association assembled at its Interim Session on March 30 in Helena does express its sincere thanks and grateful appreciation to the members of the Woman's Auxiliary to the Montana Medical Association and its component societies, to the members of the Montana Hospital Association and the Montana Conference of the Catholic Hospitals, to the members of the Montana State Nurses and Practical Nurses Associations, to the members of the Public Health League of Montana and to the many other individuals and groups whose combined efforts enabled us to successfully resolve our legislative program.

Your Legislative Committee, during the past several sessions of the Legislative Assembly, has considered the advisability of introducing legislation to authorize a statue of Father Ravalli in Statutory Hall in Washington, D. C. Again this year, it seemed to your Committee, not appropriate to attempt to introduce the necessary legislation since both houses of the Assembly were involved in the technical aspects of the statue of Charles M. Russell in Statutory Hall. Your Legislative Committee, however, is prepared to conduct a more concerted drive for this project when the time is appropriate.

President Murphy expressed his appreciation to Dr. Little and to the members of his Committee for their accomplishments during the legislative session and referred his supplemental report and the resolution therein to Reference Committee C for study.

### REFERENCE COMMITTEE B REPORT

The following report was presented by Paul J. Gans, M.D., Chairman:

Reference Committee B, which was responsible for the study of the reports of the various business committees and of the officers of this Association, reviewed with interest the many reports referred to it. Your Committee would like to take this opportunity to urge that various reports in the delegate file be read and studied by each delegate. Many of these reports are informational and, therefore, may not be read in their entirety to the delegates. The fact that they are informational and contain no recommendations for action by the House, however, should not detract from their importance because the individuals who have prepared the reports deserve the appreciation, not only of this Reference Committee, but of each of the delegates. Your Reference Committee reviewed with interest the reports of the Legal Affairs Committee, the Mediation Committee, the Emergency Med-

ical Service Committee and of the Secretary-Treasurer. These reports were all for the information of the delegates and contain no recommendation for action by this House. Your Reference Committee, therefore, suggests that they be received and placed on file.

Dr. Gans moved the adoption of this portion of the report of the Reference Committee. This motion was seconded and carried.

#### **Economic Committee**

The report of the Economic Committee, under the chairmanship of Leonard W. Brewer, M.D., discussed several subjects of interest to your Association and members of the medical profession. The first portion of the report was devoted to the revision and negotiation of contracts for indigents with county commissioners under the supervision of the State Board of Public Welfare so that it may take advantage of certain revisions in the federal statutes and obtain matching funds for various county welfare programs. The Economic Committee recommended that:

(1) Each component medical society acquaint itself with these pending changes, as described in medical information which has been sent out through our Executive Office.

(2) Each local society agree to and prepare a plan for medical care of welfare cases, peculiar to local needs, to be submitted to the local commissioners well ahead of the May 1 deadline.

(3) After negotiating with the commissioners and reaching an agreement, each local society is urged to refer its proposed plan to the Executive Committee of the Montana Medical Association through the office of the Executive Secretary before signing such an agreement.

Your Reference Committee concurs with these recommendations of the Economic Committee and recommends the adoption of this portion of the report. This motion was seconded and carried.

#### **Fee Schedule**

The Economic Committee, in its report, also discussed briefly health and accident insurance coverage, the standard insurance reporting form used by members of this Association to report claims to private underwriters, the charges made for executing insurance claim forms for patients and the fee schedule of the Industrial Accident Board, which it is anticipated will soon be revised. This portion of the Economic Committee report is informational and does not require action by this House. The Economic Committee also proposed that the House of Delegates consider authorizing a comprehensive revision of the Average Fee Schedule of the Association based upon the Relative Value Schedule recently published by the California Medical Association. This Schedule has already proven to be a satisfactory basis for negotiation of many of the Medicare programs throughout the country including the Medicare program in Montana. The Economic Committee proposes the adoption of the following dollar values in the four divisions of the Relative Value Schedule: for medicine, \$4.00; for surgery, \$4.30; for radiology, \$5.00; and for pathology,

\$5.00. The Committee proposed that the House of Delegates determine (1) whether or not to accept the Relative Value Schedule in principle and (2) whether or not to accept the values suggested for each of the four categories; that is, medicine, surgery, radiology and pathology. Your Reference Committee is inclined to concur with the proposal to adopt the Relative Value Schedule of California and the proposed dollar values. The Committee, however, proposes that these questions be discussed on the floor of the House.

Dr. Gans then moved acceptance in principle of the Relative Value Schedule of California as the basis of an Average Fee Schedule for Montana and approval of the values suggested by the Economic Committee for medicine, surgery, pathology and radiology in determining the fees in the proposed new Average Fee Schedule. This motion was seconded. During the discussion, it was pointed out by Dr. Brewer that the effect of this proposal would be the approval of a new Average Fee Schedule for the Montana Medical Association, which would be much more comprehensive than the one presently in effect. The new Schedule, based upon the Relative Value Schedule of California, would also result in a more accurate and acceptable relationship between the many procedures in the Schedule. It was indicated by Dr. Brewer, during his discussion, that in a few instances the fee for certain procedures, if the Relative Value Schedule of California is adopted, may be reduced because of certain discrepancies in the relation of some of these procedures to the other procedures in the Schedule. The California Relative Value Schedule, however, was prepared after a long and careful study and, in the opinion of the Economic Committee, provides a realistic relationship between all medical and surgical procedures.

The motion made by Dr. Gans was voted upon and carried. It was regularly moved, seconded and carried that George G. Sale, M.D., be seated as a delegate from the Western Montana Medical Society and that S. C. Pratt, M.D., be seated as a delegate from the Southeastern Montana Medical Society.

#### **AMENDMENT OF FEE SCHEDULE**

John A. Layne, M.D., then moved that the Average Fee Schedule of the Association be amended to include the procedures and phraseology outlined in the Relative Value Schedule of California and that the values of \$4.00 for medicine, \$4.30 for surgery, \$5.00 for pathology and \$5.00 for radiology, be approved for the determination of the dollar value of each fee, provided, however, that whenever a procedure in the 1952 Average Fee Schedule is more than the fee which would be determined under these new point and dollar values, the higher fee

prevail in the new Schedule. This motion was seconded.

During the discussion of the motion by Dr. Layne, it was pointed out that the adoption of it might tend to disrupt the unit values and the relationships between the various procedures in the Schedule. It was pointed out, however, that it would be inadvisable to approve a Schedule which would result in fees lower than those adopted in 1952 because, since that time, the overhead expenses of medical practice have risen materially. Following some further discussion, it was moved by Dr. Pratt that the motion by Dr. Layne be amended and that the Economic Committee be instructed to adjust the unit value of any procedure listed in the Relative Value Schedule of California so that when re-calculated under the principles just approved, it will produce a fee that will not be lower than any of those presently included in the 1952 Average Fee Schedule. Following further brief discussion, the amended motion proposed by Dr. Pratt was voted upon and carried, after which the original motion of Dr. Layne was voted upon and carried.

#### FEES FOR TESTIMONY

President Murphy asked Dr. Gans to defer presentation of the balance of the report of Reference Committee B until the afternoon session of the House. He then introduced Victor H. Fall and Lester Loble, Judges of the First Judicial District of Montana, who had requested an opportunity to present a brief message to the House of Delegates. Judge Fall then presented the following statement to the House:

As many of you know, the Legislative Assembly, at its recent session, adopted legislation to permit the District Judges to establish the fee for the testimony of physicians in commitment of the insane to the State Hospital. Judge Loble and I would like to urge, first, that members of the medical profession accept willingly and as a public duty, requests to serve on sanity juries. Presently, a very small percentage of the physicians serve on these juries, but we feel that each physician should be willing to serve in his turn. Secondly, we would like to suggest that this body recommend to us reasonable fees for the reimbursement of physicians at hearings for commitment to the State Hospital. In our opinion, the fee for the reimbursement for testimony at the average sanity hearing should be approximately \$15. This fee, of course, may be increased for testimony at hearings which extend for longer periods of time.

President Murphy then thanked Judge Loble and Judge Fall for their comments and referred their proposals to the Economic Committee for study and recommendation to the House of Delegates during the afternoon session.

This session of the House of Delegates then recessed.

#### SECOND SESSION

The second session of the Tenth Interim Session of the House of Delegates, reconvened in the Ballroom of the Placer Hotel at 1:40 p.m. Following the call to order by President Murphy, Dr. Gans, Chairman of Reference Committee B, was requested to continue his report.

The report of the Committee on the Medical-Legal Institute, under the chairmanship of James D. Morrison, M.D., included the following recommendations with which the Reference Committee heartily concurs:

- (1) That all delegates and alternate delegates urge physicians in their component societies to attend the 1957 Medical-Legal Institute to be held in Butte, May 10-11;
- (2) that members of the medical profession be polled to obtain suggestions for the theme of the 1958 Institute; and (3) that the Chairman of the Committee on the Medical-Legal Institute for 1958 be a resident of the city in which that Institute will be held.

Dr. Gans moved the adoption of this portion of the report of the Reference Committee. This motion was seconded and carried.

#### Executive Committee Report

Your Reference Committee reviewed with interest the report of the Executive Committee which included much information of value to physicians about the activities of their Association. Much of the report of the Executive Committee was informational but it did contain two recommendations, one of which concerns the operation of the House of Delegates and the other, the Annual Meeting of the Association. The Executive Committee recommends that to facilitate the review of the reports of the various standing and special committees of this Association, the number of reference committees be increased from three to seven and that these reference committees be designated as follows:

1. Reference Committee on Officers, Meetings and Administration.
2. Reference Committee on Legal Affairs and Professional Relations.
3. Reference Committee on Legislation and Public Relations.
4. Reference Committee on Resolutions and New Business.
5. Reference Committee on Affiliated Organizations.
6. Reference Committee on Health and Welfare.
7. Reference Committee on Scientific Work.

The other recommendation of the Executive Committee was that at the 1957 Annual Meeting, which will be held in Missoula, the first session of the House of Delegates be scheduled to convene at 8:30 a.m. on the first day of the meeting rather than during the late afternoon. The scientific sessions of the Annual Meeting may then be scheduled to convene at approximately 11:00 a.m. and may continue until 4:30 p.m. or 5:00 p.m. Your Reference Committee concurs in both of these proposals of the Executive Committee and recommends their approval by the House of Delegates.

Dr. Gans moved the adoption of this portion



of the report. This motion was seconded and carried.

In a supplemental report of the Executive Committee, the proposals of the State Board of Welfare for cooperation with the various county commissioners to enable them to use federal matching funds to provide medical and hospital care in four categories of public assistance, was discussed. The Executive Committee recommended that this House authorize the Committee to request the Cascade County Medical Society to appoint a special committee to serve as consultants and to be available to committees of any component medical society in implementing its plans for this new county welfare program. The Executive Committee also urged component societies to avail themselves of the advice and counsel of this special committee, if its appointment is approved, since the Cascade County Medical Society has gained much valuable experience with county welfare plans providing free choice of physician to welfare patients. Your Reference Committee concurs in these recommendations of the Executive Committee and recommends their approval.

Dr. Gans moved that this portion of the report of the Reference Committee be adopted. This motion was seconded and carried.

#### **Free Choice of Physician Resolution**

The supplemental report of the Executive Committee recommended the adoption of a resolution upon the principle of free choice of physician which would direct our delegate to the American Medical Association to obtain, by resolution and all other means available, a strong and dynamic statement of policy from the American Medical Association of opposition to any medical care plan which does not guarantee free choice of physician. Your Reference Committee concurs heartily in the principle of free choice of physician but does not believe that the adoption of the entire resolution as proposed by the Executive Committee is appropriate at this time. Your Reference Committee, instead, recommends the adoption of the following statement of principle:

RESOLVED, That the House of Delegates of the Montana Medical Association express its firm belief in the principle of free choice of physician as one of the inherent rights and liberties of any American citizen.

It was moved by Dr. Gans, and seconded, that this portion of the report of the Reference Committee be approved. Following some discussion of the reasons of the Executive Committee for submitting the original resolution and the proposals of the Reference Committee to revise it to include only a brief statement of principle, the motion was carried.

It was regularly moved, seconded and carried that N. A. Franken, M.D., be seated as a delegate from the Hill County Medical Society.

#### **Liaison Committee Approved**

The Executive Committee, in its supplemental report, recommended that the House of Delegates approve a proposal under which this Association would undertake and initiate the establishment of a liaison com-

mittee with the Montana State Dental Association, the Montana Hospital Association, physical therapists and other interested health groups for the purpose of reviewing the need and, if desirable, for re-writing both the Medical Practice Act and the Hospital Act of Montana to develop proper legislation which may, if desirable, be presented to the legislature in 1959 for enactment. Because of the report of the Executive Committee that other groups contemplate the study of Montana hospital laws and because any revision of these laws will, of course, be of primary interest and concern to the medical profession, your Reference Committee concurs in the proposal of the Executive Committee to undertake and initiate the establishment of a liaison committee with all interested health groups.

Dr. Gans moved the adoption of this report of the Reference Committee. This motion was seconded and carried.

#### **Public Relations Committee**

The Public Relations Committee, under the chairmanship of E. H. Lindstrom, M.D., presented a very informative report which included a recommendation that your Association give definite support in the form of prizes to the various science fairs that will be held during 1957. Your Reference Committee has been informed that many of the component societies of this Association actively support local science fairs and it, therefore, proposes that the House of Delegates recommend to the Executive Committee that it budget a \$100.00 award for the best exhibit presented in the field of biological sciences.

Dr. Gans moved the adoption of this portion of the report of the Reference Committee. The motion was seconded but failed to carry. It was pointed out that the Executive Committee has, for the last two fiscal years, contributed \$100.00 to the State Science Fair sponsored by Montana State University.

The Public Relations Committee, in its report, also recommended that the Chairman of the Legal Affairs Committee be instructed to furnish to the Executive Secretary, a resume of an interesting professional liability suit for publication in the bulletin. Your Reference Committee is of the opinion that this is a pertinent suggestion and recommends that information about such suits which have been contested in court and satisfactorily adjudicated, be furnished to the Executive Secretary for publication in the bulletin by the appropriate committee chairman.

Dr. Gans moved that this portion of the report of the Reference Committee be adopted. This motion was seconded and carried.

#### **Necrology Report**

In the report of the Necrology and History of Medicine Committee, which was read to the delegates by the Chairman, L. W. Brewer, M.D., it was recommended that the widow of Dr. Paul Phillips be proportionately compensated for the work done by him prior to his death, in editing the manuscript of the "Medicine in the Making of

Montana." Your Reference Committee recalls that this House of Delegates has previously authorized the appropriation of the necessary funds for compiling and editing a history of Montana medicine and, therefore, recommends that the Executive Committee of the Association be asked by the House of Delegates to review the editorial accomplishments of Dr. Phillips and to determine the amount to be paid to his widow for the editing that has been completed to date.

Dr. Gans moved the adoption of this portion of the report of the Reference Committee. This motion was seconded and carried. Dr. Gans then moved that the report of Reference Committee B as a whole be adopted. This motion was seconded and carried.

W. J. Roberts, M.D., a delegate from the Cascade County Medical Society, moved, in order to clarify the earlier action of the House of Delegates upon the adoption of a fee schedule, that the Chairman of the Economic Committee and the Executive Office of the Association be authorized to print and distribute a new Average Fee Schedule to Montana physicians in accordance with the policies already approved by the House. This motion was seconded and carried.

#### REFERENCE COMMITTEE C REPORT

The following report was presented by Raymond F. Peterson, M.D., Chairman:

Reference Committee C has reviewed the proposal of the Executive Committee in its supplemental report to amend the By-Laws of this Association to provide an associate membership classification for physicians who are full time employees of the federal government, etc. Your Reference Committee is of the opinion that these physicians should have an opportunity to become members of this Association and since all component societies of the Association were informed of this proposal to amend the By-Laws more than two months in advance of this meeting, recommends its adoption by this House.

Dr. Peterson moved the adoption of this portion of the report of the Reference Committee. This motion was seconded and carried.

#### Resolutions

The following resolutions proposed by the Resolutions Committee have been carefully reviewed by your Reference Committee, which recommends their adoption:

WHEREAS, The distances traveled by many members of our Montana Medical Association are so great that it is very difficult to attend more than two meetings a year; therefore be it

RESOLVED, That the Montana Academy of Oto-Ophthalmology and all other specialty groups planning mid-winter meetings, be invited and urged to arrange the dates of their meetings on the day or days preceding, or the day after, the Interim Session at Helena, so that the members can also attend the Interim Session at the same sojourn.

WHEREAS, Edmund S. McMahon, M.D., a long-time friend of many members of the

Montana Medical Association, who was, during his many years of practice, a faithful member of the Association and of the Silver Bow County Medical Society, has recently passed to his last reward, and

WHEREAS, All of us have been greatly benefited by the examples of his faithful service to his patients, his kindness and his humanitarianism; therefore be it

RESOLVED, That the House of Delegates of the Montana Medical Association at its Interim Session in Helena, March 30, extend its sincere sympathy to his family; and be it further

RESOLVED, That a copy of this resolution be spread upon the minutes of this meeting.

WHEREAS, Many members of the Montana Medical Association have known O. A. Kenck, D.D.S., of Augusta, Montana, and have known his service to the citizens of that community for over fifty years, and

WHEREAS, Augusta, Montana, in the early days of Dr. Kenck's practice, did not have a physician, was often snow bound in winter, and, at times, roads in the spring were impassable; during these periods he was the only person who could aid in medical emergencies until a physician could be obtained, and

WHEREAS, As a great humanitarian he has acted as a friend to those suffering death in their families, aiding wherever possible to the extent of officiating at burials, solacing the bereaved, and

WHEREAS, He has given first aid instructions to hundreds of citizens through the American Red Cross program, and in every manner walked in the footprints of the good Samaritan with a manifold kindness and gentleness, and

WHEREAS, He has received the greatest love and affection of all who know him, and has been blessed with a wife and children who have aided him in his good works; therefore be it

RESOLVED, That the House of Delegates of the Montana Medical Association is privileged to elect him an honorary member with all the rights and privileges of such membership with the wish that God may keep him and protect him always.

Dr. Peterson moved that this portion of the report of Reference Committee C be adopted. This motion was seconded and carried and each of the above resolutions thereby adopted.

#### Polio Vaccination Program

The Resolutions Committee presented the following resolution:

WHEREAS, The Public Health Committee of the Montana Medical Association, under the chairmanship of John A. Layne, M.D., has recommended that all component societies promote the polio vaccine campaign; therefore be it

RESOLVED, That a letter be sent by the President of the Montana Medical Association urging that each component medical society initiate a campaign to have everyone under the age of 40 years, in the counties within its jurisdiction, vaccinated during 1957.

Your Reference Committee proposes the adoption of the following substitute resolution:

WHEREAS, It has been satisfactorily proven that the Salk polio vaccine is a successful method for the control of this disease, and

WHEREAS, The American Medical Association

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## Utah



### News Briefs

#### UTAH'S OLDEST PHYSICIAN CELEBRATES 91ST BIRTHDAY

Dr. W. R. Calderwood, Utah's oldest physician, celebrated his 91st birthday, April 12, at a family dinner party at the home of his daughter.

Dr. Calderwood began his medical education at the University of Utah, then transferred to Rush Medical College in Chicago where he obtained his degree. He first practiced in Logan, and then moved to Salt Lake City, where he practiced forty years before retiring.

He is a past President of the Utah State Medical Association, Salt Lake County Medical Society, University of Utah Emeritus Club, the Latter-day Saints Hospital Staff and the Board of Directors of the Medical Arts Building. He was at one time a member of the board of Utah State Hospital, and was one of the organizers of the Utah Mental Health Association. He is a diplomate of the American Board of Internal Medicine.

Commissioner Otto A. Wiesley has advised that all employees of Utah's industries who require treatment for injuries or occupational disease must be treated in Utah hospitals by Utah doctors, unless they are unusual cases requiring specialized treatment not available in Utah. Previously many workers were taken to hospitals and doctors outside of the state, but Utah now has a sufficient number of qualified physicians and surgeons and hospital facilities. It is no longer necessary to transport injured and diseased persons to other states.

The John Jacob Abel Award from the American Society of Pharmacology and Experimental Therapeutics, one of the highest awards in American medicine, was recently presented to Dr. D. M. Woodbury, Associate Professor of Pharmacology at the University of Utah College of Medicine.

The award was established in honor of the late Dr. John Jacob Abel, pioneer American pharmacologist, who discovered adrenalin and was the first to crystallize insulin. He became famous during many years of service at Johns Hopkins University.

This is the fourth time since the award was established in 1947 that it has been won by a staff member of the Utah Medical College. The award consists of \$1,000 and a gold medal. It is given to a pharmacologist under age 36 who shows most promise in creative research.

The first Abel award was won in 1947 by Dr. George Sayers, then at Utah, and now at Western Reserve University. In 1949 it was given to Dr. Mark Nickerson, who has since left the Utah school, and in 1953 to Dr. Herbert L. Borison, still on the staff as Associate Professor of Pharmacology doing research work.

Utah was well represented at the Western Sectional Meeting of the United States Section of the International College of Surgeons held at Las Vegas, Nevada, April 8 and 9. Papers were presented by the following doctors: Preston J. Burnham, M.D.; Thomas R. Broadbent, M.D.; N. Frederick Hicken, M.D.; Vernon L. Stevenson, M.D.; Edward R. McKay, M.D.; J. D. Mortensen, M.D.; Robert G. Weaver, M.D., and Adolph M. Nielsen, M.D.

### Obituary

#### ELI CARLOS OPENSHAW

Dr. Eli Carlos Openshaw, 85, former mayor of Santaquin, Utah, died April 10.

Dr. Openshaw graduated from the University of Arkansas, College of Physicians and Surgeons, April 28, 1911, and practiced at Mesa for a short time before moving to Santaquin, where he practiced for twenty years. Four years ago he moved to Salt Lake City where he was practicing at the time of his death.

He was a member of the Utah State Medical Association and the American Medical Association.

#### RESIDENCIES OFFERED

Approved residencies in Physical Medicine and Rehabilitation available at New York University-Bellevue Medical Center beginning July 1, 1957. American graduates with approved internships eligible for OVR Fellowship, starting at \$3,400.00 per year with added dependency allotment. Make immediate application to: Joseph G. Benton, M.D., Institute of Physical Medicine and Rehabilitation, 400 East 34th Street, New York 16, N. Y.

Girl babies seem to be healthier than boy babies: In 1954, says Health Information Foundation, the mortality rate for male infants was 28 per cent higher than for female infants.

# Eleventh Annual Rocky Mountain Cancer Conference

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DENVER—JULY 10-11, 1957

HEADQUARTERS HOTEL—SHIRLEY SAVOY

Registration will be open 3 p.m. to 5 p.m. Tuesday, July 9, 1957, in the Lincoln Room Lobby of the Shirley Savoy Hotel. Registration on Wednesday and Thursday will be open from 8:30 a.m. until 4:00 p.m. each day in the Lincoln Room Lobby.

## WEDNESDAY, JULY 10

### Morning—Lincoln Room

Addresses of Welcome

9:15—George R. Buck, M.D., President, Colorado State Medical Society.

9:20—Ervin A. Hinds, M.D., President, Colorado Division, American Cancer Society.

9:25—John S. Bouslog, M.D., Chairman, Cancer Conference.

9:30-11:45—Symposium on Cancer of the Stomach.

Presiding, Kenneth C. Sawyer, M.D., Denver.

Participants: L. Henry Garland, M.D., San Francisco; Joseph Bank, M.D., Phoenix, Arizona; Alton Ochsner, M.D., New Orleans; Joseph A. Cunningham, M.D., Birmingham.

12:00 Noon—Luncheon, Round Table Discussion.

Presiding, Frank B. McGlone, M.D., Denver.

### Afternoon—Lincoln Room

Presiding, Clinton S. Lyter, Colonel M.C., Aurora.

2:00-2:30—Arthur T. Hertig, M.D., Boston: "Pathology of Ovarian Tumors."

2:30-3:00—Richard H. Overholt, M.D., Boston: "Management of Benign Intra-Thoracic Lesions."

3:00-3:30—Alton Ochsner, M.D., New Orleans: "Carcinoma of the Thyroid."

3:30-4:00—Joseph Bank, M.D., Phoenix: "Diagnostic Problems of Cancer of the Pancreas."

### Evening—Green Gables Country Club

6:30-7:30—Cocktail Hour. (Cash Bar)

7:30—Banquet. Speaker, Kenneth McFarland, Ph.D., Educational Consultant and Lecturer, General Motors Corporation: "Ropes of Gold."

10:00-12:00—Dancing.

## THURSDAY, JULY 11

### Morning—Lincoln Room

9:30-11:45—Symposium on Cancer of the Lung.

Presiding, Mordant E. Peck, M.D., Denver.

Participants: Richard H. Overholt, M.D., Boston; L. Henry Garland, M.D., San Francisco; Seymour Farber, M.D., San Francisco; Joseph A. Cunningham, M.D., Birmingham.

12:00 Noon—Luncheon, Round Table Discussion.

Presiding, James E. Lewis, M.D., Colorado Springs.

### Afternoon—Lincoln Room

Panel on Cytology

Presiding, Alexis E. Lubchenco, M.D., Denver

2:00-2:20—Joseph A. Cunningham, M.D., Birmingham.

2:20-2:40—Seymour Farber, M.D., San Francisco.

2:40-3:10—Arthur T. Hertig, M.D., Boston: "Genesis of Cancer of the Cervix."

3:10-3:30—Question and Answer Period.  
Adjourn.





ARTHUR T. HERTIG, M.D., Boston  
*Head of Department of Pathology*  
Harvard Medical School

**HOSTS**—Drs. Claude D. Bonham, N. Paul Isbell



KENNETH MCFARLAND, Ph.D., Topeka  
*Educational Consultant and Lecturer*

**HOSTS**—Colonel Clinton S. Lyter, M.C.,  
James E. Lewis, M.D.



RICHARD H. OVERHOLT, M.D., Boston  
*Clinical Professor of Surgery*  
Tufts College Medical School

**HOSTS**—Drs. R. K. Brown, Frederick H. Brandenburg



ALTON OCHSNER, M.D., New Orleans  
*Professor of Surgery*  
School of Medicine, Tulane, University

**HOSTS**—Drs. Ervin A. Hinds, Kenneth C. Sawyer

GUEST SPEAKERS



**JOSEPH BANK, M.D.**, Phoenix, Arizona  
*Formerly Asst. Professor of Gastroenterology*  
U. of Penna. Graduate School of Medicine  
**HOSTS**—Drs. H. Dumont Clark, A. J. Kauvar



**JOSEPH A. CUNNINGHAM, M.D.**, Birmingham  
*Professor of Pathology*  
University of Alabama Medical College  
**HOSTS**—Drs. A. E. Lubchenco, Paul K. Hamilton, Jr.



**SEYMOUR M. FARBER, M.D.**, San Francisco  
*Associate Clinical Professor of Medicine*  
University of California School of Medicine  
**HOSTS**—Drs. John I. Zarit, Roger Mitchell



**L. HENRY GARLAND, M.D.**, San Francisco  
*Clinical Professor of Radiology*  
Stanford University Medical School  
**HOSTS**—Drs. John S. Bouslog, K. D. A. Allen

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## Component Societies

### ARAPAHOE COUNTY

The Arapahoe County Medical Society held its regular meeting Tuesday, April 30, with approximately forty-five members present.

Nurses from the Tri-County Health Department reviewed the services available through their department which include visiting nurses, rest home inspection and consultation, free immunization clinics and well baby clinics.

At the business meeting which followed, a motion was passed that free polio clinics be continued for children from the ages of 0-19, with the immunizations being administered in the schools and in the indigent well baby clinics through the donated services of the doctors of the county. It was brought to the attention of the group that in the past three years over 110,000 free polio immunizations have been given in the Tri-County Area. It was felt by the members present that this should pretty well have covered the indigent people of this area and that people who wanted to pay for their immunizations should be able to receive them when vaccine is available. Private doctors will continue to give their full support to clinics sponsored by private groups.

Election of officers was held for the coming year. James M. Kennedy, M.D., of Aurora, was elected President of the Arapahoe County Medical Society; James A. Henderson, M.D., Englewood, was elected Vice President; A. I. Rowan, M.D., Aurora, Secretary; Paul Wenzel, M.D., Englewood, Treasurer; Sabin Percefull, M.D., Englewood, Delegate; James Patterson, M.D., Englewood, Alternate Delegate, and Philip Miner, M.D., Englewood, Censor.

### PUEBLO COUNTY MEDICAL SOCIETY SPRING CLINICS

Announcement has been made by the Pueblo County Medical Society that the dates for their Spring Clinics in 1958 will be April 25 and 26. The Society unanimously decided to hold future Spring Clinics on the last Friday and Saturday of April.

## News Briefs

### AMERICAN MEDICAL WOMEN'S ASSOCIATION

The Annual Dinner of the Colorado Chapter of the American Medical Women's Association

was held recently with fifty physicians and medical students in attendance. Dr. Ruth Howard and Dr. Louise Frankenger spoke of opportunities for women physicians, and new officers were elected as follows: President, Dr. Edna Stuver; Vice President, Dr. Gertrud Weiss; Secretary-Treasurer, Dr. Leda Janke, and Board Members: Drs. Ruth Raattama, Thelma Perozzi, Helen Maytum, Ruth Cook, Miriam Benner and Elizabeth Ann Ehrhardt.

The three graduating seniors of the Florence Sabin Junior Branch were also honored at the dinner and spoke of their plans for internships.



**Dr. Robert L. Zobel (right)**, Chief of the Health Division, ICA, Thailand, and **Dr. Glen R. Leymaster**, Advisor in Preventive Medicine, discussing medical program before Dr. Zobel left for the U. S. on home leave.

**BANGKOK, THAILAND**—After spending the past two years in Thailand, Dr. and Mrs. Robert L. Zobel of Denver, Colorado, recently returned to the U. S. on home leave, along with their two sons, ages 10 and 8.

Dr. Zobel, a U. S. Public Health Service officer who is on loan to the International Cooperation Administration, has given distinguished service during his two-year assignment with ICA's Mission to Thailand, where he is Chief of the Public Health Division. Following a vacation in the U. S., he will return to his work in Thailand for another two years.

His job has been to plan and coordinate a health assistance program in cooperation with the Thai Ministry of Health, designed to provide for the full utilization of U. S. technical and financial assistance in the field of public health, with particular emphasis on achieving lasting benefits with a nationwide effect. The overall objective of this program is to improve all public health activities, including medical education, disease prevention, and hospital facilities and services. While a great deal of Dr. Zobel's work has been directly concerned with the Thai Ministry of Health in Bangkok, he has traveled throughout Thailand to view personally the many problems at which his program is aimed.

Dr. Zobel has been with the USPHS for seventeen years, serving in many sections of the U. S.

for JUNE, 1957

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A graduate of the University of Denver, he holds an M.D. degree from University of Colorado, and the M.P.H. from Johns Hopkins School of Public Health.

Legion Post, and Colorado State and Denver Medical Societies.

Survivors include his widow, Mildred; a daughter, Mrs. Jeanne Gaskins of San Diego, California; a son, Dr. William B. Summers III, Casper, Wyoming; and one grandchild.

## Obituaries

### ARTHUR PAGE JACKSON, JR.

Dr. Arthur Page Jackson, Jr., died in Idaho Springs following a prolonged illness. He was born in 1907 in Denver, where he attended public schools. He graduated from the University of Colorado with an A.B. degree in 1928 and with an M.D. degree in 1932. He interned at Denver General Hospital in 1933 and practiced in Wheatland, Wyoming, from 1933 to 1935. Following this he took postgraduate work in radiology at the University of Pennsylvania, after which he was associated with Drs. Wasson and Bouslog and later opened his own office which he maintained until about three years ago. He retired from active practice because of ill health. He was a member of the A.M.A., Colorado State and Denver Medical Societies, in addition to his radiology specialty organizations.

### WILLIAM B. SUMMERS

Dr. William B. Summers died at his home on March 31, 1957. He was born on January 16, 1902, in Hardin, Missouri, attended Missouri University and received his M.D. from Tulane University. He was a member of Crested Butte Masonic Lodge, Colorado Consistory No. 1, El Jebel Shrine, Leyden-Chiles-Wickersham American

### WILFRED S. DENNIS

Dr. Wilfred S. Dennis died on April 20, 1957, at St. Joseph's Hospital. He was born in Hamilton, Ohio, February 10, 1890. He was graduated from Jefferson Medical College, Philadelphia, and interned at Muhlenberg Hospital, Plainfield, New Jersey. He held a fellowship in pathology at Columbia University and was pathologist at Nursery and Child's Hospital in New York City in 1916 and 1917. After serving with the Medical Corps in World War I, he was chief of the laboratory service at the U. S. General Hospital in Plattsburg, New York. He came to Denver as pathologist at Denver General Hospital in 1922.

Dr. Dennis was an instructor in pathology at the University of Colorado Medical School from 1927 to 1930 and was an Associate Professor of Medicine at the medical school from 1943 to 1946. He was a Fellow of the American College of Physicians and a Diplomate of the American Board of Internal Medicine. He served as President of the Denver Medical Society in 1944-45, President of the Clinical and Pathological Society in 1949-50, and was a member of the Board of Trustees of the Denver Medical Society. He was a member of the Denver Country Club.

Survivors include his wife, Phyllis; three daughters, Mrs. Jeanne Peck, Riverside, Califor-

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nia; Mrs. Margaret D. Bickham, Tucson, Arizona, and Mrs. Kathleen I. Hally, Denver; and a brother, Arthur W. Dennis, Meadville, Pennsylvania.

#### FRANK R. SPENCER

Dr. Frank R. Spencer died at his home in Boulder on April 20, 1957, after a long illness. He was born June 12, 1879, in Burlington, Iowa. He received a B.A. degree and an M.D. from the University of Michigan in 1900 and 1902, respectively. He came to Boulder in 1905 and was affiliated with the University of Colorado Medical School, later becoming head of the Department of Otolaryngology. In 1941 he was President of the American Academy of Ophthalmology and Otolaryngology, in 1947 was President of the American Laryngology Association and also served as chairman of the Section of Laryngology, Otology and Rhinology of the American Medical Association. He was a Fellow of the American College of Surgeons. He had written more than ninety articles for medical journals and a chapter in the five-volume Encyclopedia of Otolaryngology.

Survivors include his wife, Majorie, Boulder; two sons, Dr. J. Robert Spencer, Denver, and Dr. Donald Spencer, a member of the faculty of Princeton, University; and five grandchildren.

#### ROBERT S. IRWIN

Dr. Robert S. Irwin, Denver's oldest practicing physician, died on May 16, 1957, in Presbyterian Hospital after a long illness. He was born November 10, 1870, in Newtown, Pennsylvania, and studied medicine at the University of Pennsyl-

vania and Maryland Medical College. He practiced in Mexico, Jamaica, and Ecuador before coming to Denver in 1905. He specialized in tuberculosis and geriatrics. In 1955 he received an award from the Colorado Medical Society for having practiced medicine in Denver for fifty years. He was the founder of Craig Colony for destitute tuberculous patients and of Sands House. He was a member of Capitol Heights Presbyterian Church, the Masons and Colorado State and Denver Medical Societies and the A.M.A., also the American Geriatrics Society. His wife died three years ago.

Surviving are two nieces, Mrs. W. Joseph Seep, Denver, and Hilda Irwin, Philadelphia.

#### FLORENCE FEZER

Dr. Florence Fezer, former Fort Collins physician, died recently at her home in Greeley. In the 1920's she was medical examiner for the Women's Physical Education Department at Colorado A. & M. College. She was a graduate of Colorado College and the University of Colorado Medical School. She retired from practice in 1940. She was a member of the Colorado State Medical Society and the American Medical Association. She was the daughter of Frederick Fezer, who was the first pharmacist in the Greeley colony.

Once an infant has survived the dangerous first week of life, Health Information Foundation reports, the chances are nearly 100 to 1 that he will live to see his first birthday.

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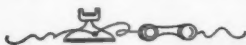
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## Correspondence



### Free Choice of Physician

To the Editor:

On the subject of the recent report by the Board of Councilors on "Free Choice of Physician" (May R.M.M.J., p. 432):

In my capacity as Medical Advisor to Colorado College I inquire whether the provisions in this report might apply to the Student Health Service of this College. Since all students, through their tuition, contribute to the upkeep of our Infirmary, one might consider that there was some compulsion without a choice in the matter. On the other hand, since the student does not need to choose to come to this College and since there is no obligation to patronize the services of the Infirmary, it might be considered that the student still has (as he certainly believes he has) a free choice of physician.

Dr. Leo Bortree, my predecessor in this position at the College, believes that the question does not apply to our Student Health Service since it has been functioning without question for 40 or 50 years and has been serving a useful purpose in educating college students on the subject of medical care . . .

ROGER S. WHITNEY, M.D.,  
Colorado Springs.

**EDITOR'S NOTE:** The above thought-provoking question was submitted to several officials for comment. Excerpts of their replies follow.

Dear Doctor:

Having listened to all the thinking-out-loud that preceded the April 13 Opinion, I would say that the April 13 Opinion is as far as the Board of Councilors will go at the present time in issuing opinions on hypothetical questions of Free Choice. The Board has issued what it considers is a pretty thorough study, opinion, and conclusion. It is now up to each doctor who is concerned with any medical care plan to determine for himself whether his plan allows free choice within the Board's Opinion or does not. If it does not, the doctor has the choices of dissociating himself from the plan, getting the plan modified to abide by free choice within the next year, or assuming the calculated risk that at the end of the year someone might file a complaint against him and bring about discipline within the Society.

If our mutual friend Dr. Bortree says that something that has not been questioned for 40

or 50 years is therefore O.K., I would make bold to dispute even him, because the Opinion of the Board of Councilors makes it clear that a number of medical plans that have been in operation and have not been questioned for a long time nevertheless have injured the free choice principle.

I realize this is a totally inadequate answer to your question, but I don't see how I can do any better. I doubt if the Board of Councilors would appreciate my endeavoring to give any opinion on a determination of ethics, which is distinctly outside my jurisdiction and in fact outside the jurisdiction of everyone except that Board . . .

HARVEY T. SETHMAN,  
Executive Secretary.

Dear Sir:

The main problem in matters of ethics is that there is no pure black or white, just a series of grays. The final verdict must be up to the individual physician and the Board of Councilors, —if I made the statement attributed to me by Roger it must have been in one of my balmy moments! But, to think out loud in regard to the Free Choice of Physician as related to college student health programs:—

My views are the result of twelve years experience as Medical Advisor to the student body of Colorado College. Please note the title of the position I held and which is now held by Dr. Roger Whitney: "Medical Advisor." This title was well chosen by the College Board of Trustees for it involves far more than the treatment of ill or injured students. In this College the Medical Advisor is a member of the faculty; he is a definite part of the educational program. How well he fulfills all the requirements is not essential to this discussion, though I feel the ideal is well approximated in most instances. My ideal of a good student health program is as follows:

1. Each student to have a physical examination at the beginning of each school year, to determine:

- a. His public health status as to communicable disease (tuberculosis, transmissible skin lesions, exanthemata, etc.);
- b. His personal health as related to his abil-

ity to participate in athletics, either on a full or limited schedule;

c. His physical ability to take on full-time scholastic work, doing outside work for additional financial support, taking part in social activities, etc;

d. And to establish a continuing record of his physical status throughout his college days for reference if needed later to evaluate disabilities.

2. The college should provide a dispensary, properly staffed, for the care of students becoming ill or injured while in school. The college stands *in loco parentis* to assure the student's safety while absent from his home. In this connection an infirmary should be provided with semi-hospital facilities for the care of minor disabilities.

3. A vital part of the program is that those in charge of it carry out their duty as educators, to teach students about personal and public health. This should include didactic courses in hygiene, physical conditioning, transmission of disease, transmission of congenital disorders, and pre-marriage instruction. The didactic teaching would be facilitated by the personal contacts in the dispensary, the examinations, and the infirmary care, acting as laboratory courses in health procedures.

4. One of the main activities of the college physician is helping to handle emotionally disturbed students (a major problem facing all college Deans), in cooperation with the department of psychology and with the available psychiatrists of the community.

A student finishing his college days under such a health program should be well informed as to the essentials of good health, the need for regular check-ups, what constitutes a minimum physical examination, the advantages to be derived from early attention to apparently minor disorders, the advantages of consultation with specialists when needed, yet recognizing the fact that the majority of disorders can well be handled by a general practitioner.

To develop this latter part of the program the student health department must have access to, and use, competent consultants in various fields. It devolves upon the health service to seek the cooperation of all physicians of the community. If the local doctors feel they are a part of the college health program, there will be little ob-

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Annual Session; September 5-7; Salt Lake City

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## COMMITTEES

**Executive Committee:** James Z. Davis, Chairman, Salt Lake; R. O. Porter, Logan; Alan P. Macfarlane, Salt Lake; Reed W. Farnsworth, Cedar City; J. Poulson Hunter, Salt Lake.  
**Grievance Committee:** Cyril L. Vance, Chairman, 1959, Salt Lake Co. Med. Soc., Salt Lake; J. Gordon Felt, 1957, Box Elder Med. Soc., Brigham City; Eugene M. Davis, 1959, So. Utah Med. Soc., Milford; G. S. Rees, 1959, Central Utah Med. Soc., Gunnison; Roy Hammond, 1959, Utah County Med. Soc., Provo; J. Paul Burgess, 1959, Cache Valley Med. Soc., Logan; Leland K. Dayton, 1959, Carbon County Med. Soc., Price; Ray E. Spendlove, 1958, Uintah Basin Med. Soc., Vernal; Ralph Ellis, 1958, Weber Co. Med. Soc., Ogden.  
**Rocky Mountain Medical Conference Continuing Committee:** Robert G. Snow, Chairman, 1958, Salt Lake; Emil G. Holmstrom, 1957, Salt Lake; R. P. Middleton, 1959, Salt Lake; Jesse J. Wright, 1960, Provo; Drew Peterson, 1961, Ogden.  
**Scientific Program Committee:** J. Poulson Hunter, Salt Lake; Emil G. Holmstrom, Salt Lake; Ernest L. Wilkinson, Salt Lake; Adolph M. Nielsen, Salt Lake; F. Willis Taylor, Salt Lake; Wallace S. Brooke, Salt Lake.  
**Medical Legal Committee:** Wm. M. Nebeker, Chairman, 1958, Salt Lake; H. R. Reichman, 1957, Salt Lake; Paul S. Richards, 1957, Salt Lake; Wallace S. Brooke, 1957, Salt Lake; Paul A. Pemberton, 1957, Salt Lake; A. J. Mohr, 1958, Tremonton; O. S. Francis, 1958, Wellsville; Elliot Snow, Salt Lake; J. J. Galligan, Salt Lake; Donald V. Poppen, 1958, Provo; John H. Clark, 1959, Salt Lake; J. Clare Hayward, 1959, Logan.  
**Medical Education and Hospitals Committee:** John A. Gubler, Chairman, 1957, Salt Lake; Philip B. Price, 1957, Salt Lake; John Z. Brown, 1958, Salt Lake; J. Russell Smith, 1958, Provo; Merrill C. Daines, 1958, Logan; U. R. Bryner, 1959, Salt Lake; G. C. Flecklin, 1958, Tremonton; Rulon F. Howe, 1960, Ogden; P. K. Edmunds, 1960, Cedar City; W. R. Worley, 1959, Richfield; Carl T. Woolsey, 1960, Salt Lake.  
**Medical Economics Committee:** James A. Cleary, Chairman, 1957, Salt Lake; Philip M. Howard, 1957, Salt Lake; Russell N. Hirst, 1957, Ogden; Riley G. Clark, 1958, Provo; Orson Spencer, Price.  
**Medical Advisory Board—"U" Medical School:** R. P. Middleton, Chairman, Salt Lake; R. O. Porter, Logan; Frank K. Bartlett, Ogden; Fuller B. Bailey, Salt Lake; Leslie J. Paul, Salt Lake; Charles Ruggeri, Salt Lake; James Z. Davis, Salt Lake; George M. Flister, Ogden; Mr. Clarence Bamberger, Salt Lake; Mr. Thorpe B. Isaacson, Salt Lake; Philip B. Price, Salt Lake; Emil G. Holmstrom, Salt Lake; Louis S. Goodman, Salt Lake; Pres. A. Ray Olpin, or G. Homer Durham, Salt Lake.  
**Special Committees Allied to Public Health:** A. M. Okelberry, Salt Lake; Warren B. West, Ogden; Jay P. Bartlett, Ogden; Horace L. White, Ogden; R. W. Farnsworth, Cedar City; D. W. Challis, Murray.  
**Trauma Committee:** A. M. Okelberry, Chairman, Salt Lake; John M. Bowen, Provo; Keith F. Farr, Ogden.  
**Cancer Committee:** Warren B. West, Chairman, Ogden; John H. Carlquist, Salt Lake; Richard A. Call, Provo; Henry F. Plenk, Salt Lake; John A. Dixon, Ogden.  
**Sewage Water and Air Pollution Committee:** Jay P. Bartlett, Chairman, Ogden; M. Reed Merrill, Brigham City; A. James Fillmore, Logan; B. Kent Wilson, Price; K. B. Cartleton, Salt Lake; George Soffe, Salt Lake; G. Cloyd Krebs, Provo; W. R. Worley, Richfield.  
**Tuberculosis and Cardiovascular Disease Committee:** Horace L. White,

Chairman, Ogden; W. E. Peltzer, Salt Lake; K. A. Crockett, Salt Lake; James M. Bosma, Salt Lake; Robert E. Johnson, Draggerton.

**Rural Health Committee:** R. W. Farnsworth, Chairman, Cedar City; Howard Rasmussen, Co-Chairman, Brigham City; Paul G. Stringham, Roosevelt; Milo C. Moody, Spanish Fork; Thomas M. Hall, Payson; N. L. Parker, Springville.

**School Health Committee:** D. W. Challis, Chairman, Murray; Cloyd C. Hofheins, Bountiful; Sherman S. Brinton, Salt Lake; Riley G. Clark, Provo; M. K. McGregor, St. George; Paul Rasmussen, Salt Lake.

**Mental Health Committee:** Clark Young, Chairman, Salt Lake; Eugene L. Wiemers, Provo; L. G. Moench, Salt Lake; Joseph P. Kesler, Salt Lake; Just Trowbridge, Bountiful.

**Industrial Health Committee:** R. M. Muirhead, Chairman, Salt Lake; Rulon F. Howe, Ogden; Paul A. Clayton, Jr., Salt Lake; Drew M. Petersen, Ogden; James Z. Davis, Salt Lake; D. T. Madsen, Price; Wm. M. Gorsihuk, Price; S. W. Georges, Provo; Charles Ruggeri, Salt Lake; William A. Wilbur, Salt Lake.

**Special Committees Allied to Public Relations:** N. F. Hicken, Chairman, Salt Lake; E. B. Muir, Salt Lake; Dean Spear, Salt Lake; J. Clare Hayward, Logan; Q. B. Coray, Salt Lake.

**Legislative Committee:** N. F. Hicken, Chairman, Salt Lake; V. L. Stevenson, Salt Lake; Louis P. Mattheil, Ogden; Clark L. Rich, Ogden; John E. Smith, Duchesne; Halvard J. Davidson, Manti; R. N. Malouf, Logan; Paul A. Clayton, Salt Lake; Philip B. Price, Salt Lake; E. Wayne Alfred, Orem; Henry David Rees, Provo; L. V. Broadbent, Cedar City; Dean C. Evans, Fillmore; J. H. Millburn, Tooele; F. R. King, Price.

**Utah Health Council:** E. B. Muir, Chairman, Salt Lake; N. F. Hicken, Salt Lake; Paul A. Clayton, Jr., Salt Lake; Roy B. Hammond, Provo; R. P. Williams, Kaysville; R. V. Larsen, Roosevelt.

**Relations with Press, Radio and Television Committee:** Dean Spear, Chairman, Salt Lake; George A. Peck, Salt Lake; Henry David Rees, Provo; J. G. Olson, Ogden.

**Insurance Plans Committee:** J. Clare Hayward, Chairman, Logan; John H. Clark, Salt Lake; Craig Clark, Provo; Wallace S. Brooke, Salt Lake; H. R. Reichman, Salt Lake; O. E. Grus, Ogden.

**Newspaper Health Column Committee:** Q. B. Coray, Chairman, Salt Lake; Y. D. Eskelson, Salt Lake; R. Raymond Green, Heber City; Preston Hughes, Spanish Fork; Anthony J. Lund, Ogden; Hugh O. Brown, Salt Lake.

## SPECIAL COMMITTEES

**Civilian Defense Committee:** Leslie J. Paul, Chairman, Salt Lake; LeRoy A. Wirthlin, Salt Lake; A. A. Jenkins, Salt Lake; Nephi Kezerian, Provo; Dean Tanner, Ogden.

**Constitution and By-Laws Committee:** J. Russell Smith, Chairman, Provo; James M. Catlin, Ogden; R. O. Johnson, Murray; Garner B. Meads, Salt Lake; C. Louis Jorgensen, Ogden; Ray T. Woolsey, Salt Lake.

**Blood Bank Committee:** P. M. Chase, Chairman, Salt Lake; Crichton McNeil, Salt Lake.

**Advisory Committee to Woman's Auxiliary:** James Z. Davis, Salt Lake; James H. Rasmussen, Brigham City; C. C. Randall, Logan; L. H. Merrill, Hiawatha; John B. Cluff, Richfield; James F. Orme, Salt Lake; R. G. Williams, Cedar City; T. R. Seager, Vernal; Ralph E. Jorgensen, Provo; I. Bruce McQuarrie, Ogden.

**Necrology Committee:** L. A. Stevenson, Salt Lake; Leland K. Cullimore, Provo.

**Veterans Affairs Committee:** V. H. Johnson, Chairman, Ogden; Frank F. Daughters, Salt Lake; W. E. Peltzer, Salt Lake.

**Geriatrics Committee:** Victor Kassel, Chairman, Salt Lake; Vernon L. Ward, Ogden; G. B. Madsen, Mt. Pleasant; LeRoy A. Wirthlin, Salt Lake; L. W. Sorenson, Parowan; Glenn B. Orton, Springville.

**Planning Committee:** James Z. Davis, Chairman, Salt Lake; R. O. Porter, Logan; Alan P. Macfarlane, Salt Lake; Charles Ruggeri, Jr., Salt Lake.

**Building Committee:** Charles Ruggeri, Jr., Chairman, Salt Lake; James Z. Davis, Salt Lake; I. Bruce McQuarrie, Ogden; Philip B. Price, Salt Lake.

**Special Committee on Hospital Rules and Regulations:** Frank K. Bartlett, Ogden; John Z. Brown, Jr., Salt Lake; Joseph P. Kesler, Salt Lake; Gail W. Haut, Price; L. W. Sorenson, Parowan; Talmage M. Thomas, Pleasant Grove; William M. Nebeker, Salt Lake.

**Resolutions Committee:** Elliot Snow, Chairman, Salt Lake.

**Nominating Committee for 1957:** James Z. Davis, Chairman, Salt Lake; R. O. Porter, Logan; Alan P. Macfarlane, Salt Lake; Reed W. Farnsworth, Cedar City; J. Poulson Hunter, Salt Lake.

**Nursing Committee:** J. D. Mortenson, Salt Lake; B. N. Hirst, Ogden; Lloyd L. Cullimore, Provo.

**Committee on Child Adoption:** Mildred Nelson, Chairman, Salt Lake; John A. Dixon, Ogden; R. H. Wakefield, Provo.

**Hospital Relations Committee:** R. O. Porter, Chairman, Logan; Drew M. Petersen, 1958, Ogden; Leslie B. White, 1959, Salt Lake; J. Russell Smith, 1957, Provo; James Z. Davis, 1958, Salt Lake; Reed W. Farnsworth, 1959, Cedar City.

# MONTANA MEDICAL ASSOCIATION

Annual Meeting; September 19-21, Missoula

## OFFICERS

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated, the term is for one year only and expires at the 1957 Annual Session.

**President:** Edward S. Murphy, Missoula.

**President-Elect:** John A. Layne, Great Falls.

**Vice President:** Herbert T. Caraway, Billings.

**Secretary-Treasurer:** Theodore R. Vye, Billings.

**Assistant Secretary-Treasurer:** Park W. Willis, Jr., Hamilton.

**Executive Committee:** Edward S. Murphy, Missoula, Chairman; John A. Layne, Great Falls; Herbert T. Caraway, Billings; Theodore R. Vye, Billings; Park W. Willis, Jr., Hamilton; George W. Setzer, Malta; John J. Malee, Anaconda.

**Executive Secretary:** Mr. L. R. Hegland, P. O. Box 1692, Office Telephone 9-2583, Billings.

**Delegate to American Medical Association:** Raymond F. Peterson, Butte; alternate, Paul J. Gans, Lewistown.

## STANDING COMMITTEES

**Executive Committee:** Edward S. Murphy, Chairman, Missoula; Herbert T. Caraway, Billings; John A. Layne, Great Falls; John J. Malee, Anaconda; George W. Setzer, Deer Lodge; T. R. Vye, Billings; Park W. Willis, Jr., Hamilton.

**Economic Committee:** Leonard W. Brewer, Chairman, Missoula; F. H. Crapo, Great Falls; Harvey L. Casheber, Butte; David Gregory, Glasgow; Phillip E. Griffin, Billings; Perry M. Berg, Billings; D. D. Gnoose, Missoula; R. E. Mattison, Billings; William E. Harris, Livingston; John E. Low, Sidney; D. S. MacKenzie, Jr., Havre; S. C. Pratt, Miles City.

**Legislative Committee:** Amos R. Little, Jr., Chairman, Helena, 1958; Herbert T. Caraway, Billings, 1958; Paul L. Eneboe, Bozeman, 1957; M. A. Gold, Butte, 1957; Harry J. McGregor, Great Falls, 1959; Robert M. Morgan, Helena, 1959; Philip D. Pallister, Boulder, 1957.

**Committee on Necrology and History of Medicine:** Leonard W. Brewer, Chairman, Missoula; Lewis W. Allard, Billings; M. G. Danks, Billings; Albert A. Dodge, Kalspell; Edward M. Gans, Harlowton; Roy E. Seitz, Bozeman; James I. Werham, Billings.

**Public Relations Committee:** E. H. Lindstrom, Chairman, Helena, 1957; Albert W. Axley, Havre, 1958; Wayne Gordon, Billings, 1958; Alfred M. Lucke, Livingston, 1957; George A. Sexton, Great Falls, 1958; James C. Shields, Butte, 1957; C. B. Sture, Missoula, 1958; L. L. Vadheim, Jr., Bozeman, 1959; George D. Waller, Jr., Cut Bank, 1959.

**Legal Affairs Committee:** Park W. Willis, Jr., Chairman, Hamilton, 1958; F. S. Marks, Vice Chairman, Billings, 1959; Louis W. Allard, Chairman Emeritus, Billings; Walter B. Cox, Missoula, 1959; F. D. Hurd, Great Falls, 1958; Chester W. Lawson, Havre, 1957; Robert E. Mattison, Billings, 1957; F. L. McPhail, Great Falls, 1958; S. C. Pratt, Miles City, 1959; T. W. Saam, Butte, 1957.

**Program Committee:** Stephen N. Preston, Chairman, Missoula; Vice Chairman, (temporarily vacant); Wilbur A. Armstrong, Billings; A. K. Atkinson, Great Falls; Eugene J. P. Drinnard, Missoula; T. R. Vye, Billings, Ex-officio.

**Interprofessional Relations Committee:** L. Clayton Allard, Chairman, Billings; M. O. Anderson, Hardin; Kenneth E. Bruns, Kalspell; Richard O. Chambers, Glendive; A. J. Marchello, Billings; F. I. Sabo, Bozeman.

**Nominating Committee:** Arthur R. Kintner, Chairman, Missoula; George M. Donich, Anaconda; David Gregory, Glasgow; James D. Morrison, Billings; Frank J. Pickett, Bozeman.

**Auditing Committee:** William R. McElwee, Chairman, Townsend; L. M. Benjamin, Deer Lodge; Robert D. Knapp, Wolf Point; John J. Mitschke, Helena; Arthur H. Wells, Billings.

**Mediation Committee:** George J. Moffitt, Chairman, Livingston, 1959; H. M. Clemmons, Butte, 1958; Edward W. Gibbs, Billings, 1957; Robert G. Kroeze, Butte, 1957; D. S. MacKenzie, Jr., Havre, 1958; William F. Morrison, Missoula, 1958; Raymond W. Polk, Miles City, 1959; Harry W. Power, Great Falls, 1959; A. L. Vadheim, Jr., Bozeman, 1957.

**Cancer Committee:** Herbert H. James, Chairman, Butte; H. M. Blegen, Missoula; George T. R. Fahlund, Great Falls; John J. Malee, Anaconda; Harry W. Power, Great Falls; Edwin C. Segard, Billings; William H. Sippel, Bozeman.

**Maternal and Child Welfare Committee:** Chester W. Lawson, Chairman, Havre.

**Subcommittee on Obstetrics:** Harry B. Campbell, Chairman, Missoula; J. E. Brann, Kalspell; Earl L. Hall, Great Falls; Elma M. Howard, Miles City; M. E. K. Johnson, Kalspell; Charles W. Pemberton, Butte; Frank J. Pickett, Bozeman; Edward F. Randak, Billings; John C. Seidensticker, Twin Bridges.

**Subcommittee on Pediatrics:** Frank J. Friden, Chairman, Great Falls; George B. Barmeyer, Missoula; Joseph W. Brinkley, Great Falls; Donald L. Gillespie, Butte; Kenneth J. Lampert, Kalspell; O. M. Moore, Helena; George W. Nelson, Billings; Katherine E. Dawson, Helena, Ex-officio.

**Tuberculosis Committee:** Frank I. Terrill, Chairman, Deer Lodge; Roger W. Clapp, Butte; Harold F. Hagan, Anaconda; John M. Nelson, Missoula; Harry W. Power, Great Falls; John H. Schaeffer, Billings; Lloyd M. Taylor, Great Falls; Charles E. Trush, Kalspell; Mabel E. Tuchscherer, Butte; Paul R. Ensing, Helena, Ex-officio.

**Fracture and Orthopedic Committee:** Charles F. Honeycutt, Chairman, Missoula; H. M. Clemmons, Butte; W. E. Dotter, Great Falls; Walter H. Hagen, Billings; M. E. K. Johnson, Kalspell; W. J. McDonald, Missoula; Thomas C. Power, Great Falls; William H. Walton, Billings; Katherine E. Dawson, Helena, Ex-officio.

**Rural Health Committee:** B. C. Farrand, Chairman, Jordan; William A. Asbury, Harlowton; I. J. Bridenstine, Missoula; William R. McElwee, Townsend; Robert J. McGregor, Great Falls; Vernon D. Standish, Big Timber; Walter G. Tanglin, Polson; Francis L. VanVeen, St. Ignace; Myron E. Veseh, Havre; George D. Waller, Jr., Cut Bank; Joseph J. Wier, Big Sandy; E. L. Sederlin, Helena, Ex-officio.

**Industrial Welfare Committee:** David J. Almas, Chairman, Havre; John A. Evert, Missoula; Herbert H. James, Butte; Russell B. Richardson, Great Falls; L. F. Rotar, Butte; James G. Sawyer, Butte; Jess T. Schwidde, Billings; Frances K. Waniata, Great Falls; Paul R. Ensing, Helena, Ex-officio.

**Rheumatic Fever and Heart Committee:** John S. Gilson, Chairman, Great Falls; Harold A. Braun, Missoula; William G. Ensing, Billings; Deane C. Epler, Bozeman; Harold W. Gregg, Butte; Elizabeth Grimm, Billings; John H. O'Leary, Havre; H. C. Scharnweber, Glasgow; George R. Wright, Kalspell; Paul R. Ensing, Helena, Ex-officio.

**Subcommittee on Cardiac Diagnostic Center:** John S. Gilson, Chairman, Great Falls; Frank J. Friden, Great Falls; O. M. Moore, Helena; Donald C. Overy, Great Falls; Harry W. Power, Great Falls; Lord M. Tyson, Great Falls; Thomas F. Walker, Great Falls; Ex-officio, Betty C. Gilson, Great Falls; Katherine E. Dawson, Helena, and Paul R. Ensing, Helena.

**Rocky Mountain Medical Conference Committee:** M. A. Gold, Chairman, Butte, 1957; Albert W. Axley, Havre, 1958; Deane C. Epler, Bozeman, 1961; Arthur J. Movins, Billings, 1960; T. W. Saam, Butte, 1959; Ex-officio, Edward S. Murphy, Missoula, and T. R. Vye, Billings.

**Public Health Committee:** John A. Layne, Chairman, Great Falls; L. Clayton Allard, Billings; David J. Almas, Havre; Robert R. Beans, Great Falls; B. C. Farrand, Jordan; John S. Gilson, Great Falls; Charles F. Honeycutt, Missoula; Herbert H. James, Butte; Chester W. Lawson, Havre; William F. Morrison, Missoula; Charles W. Pemberton, Butte; Frank I. Terrill, Deer Lodge; George E. Trough, Anaconda; Thomas F. Walker, Great Falls; Winfield S. Wilder, Great Falls.

**Committee on Hospital Relations:** Robert R. Beans, Chairman, Great Falls; Mary E. Martin, Billings; John A. Newman, Butte; D. Davis Parke, Bozeman; Frank M. Petkevich, Great Falls; Edwin C. Segard, Billings.

**Committee on Blood:** John A. Newman, Chairman, Butte; Leonard E. Kuffel, Missoula; Mary E. Martin, Billings; T. B. Moore, Kalspell; Raymond F. Peterson, Butte; Edwin C. Segard, Billings; Dora V. H. Walker, Great Falls.

**Committee on Mental Hygiene:** Winfield S. Wilder, Chairman, Great Falls; Joseph W. Brinkley, Great Falls; James J. Bulger, Great Falls; Gladys V. Holmes, Missoula; Bryce G. Hught, Billings; H. Ryle Lewis, Missoula; Martin A. Ruona, Billings.

## SPECIAL COMMITTEES

**Arthritis and Rheumatism Committee:** Ralph H. Biehn, Chairman, Billings; T. D. Callan, Anaconda; John F. Fulton, Missoula; Thomas J. Malee, Glendive; John J. Mitschke, Helena; M. D. Winter, Miles City.

**Committee on Arthritis:** David Gregory, Chairman, Glasgow; Harold A. Braun, Missoula; Elizabeth Grimm, Billings; E. P. Higgins, Kalspell; James A. Shown, Great Falls; Robert K. West, Cut Bank.

**Committee on Emergency Medical Service:** George E. Trough, Chairman, Anaconda; Van S. Lawrence, Missoula; Edward C. Maronick, Helena; Jess T. Schwidde, Billings; W. Bruce Talbot, Butte; Robert E. Walker, Livingston; G. D. Carlyle Thompson, Helena, Ex-officio.

**Committee on Highway Safety:** James C. Shields, Chairman, Butte; James M. Flinn, Helena; Raymond O. Lewis, Helena; James D. Morrison, Billings; Scott L. Walker, Anaconda.

**Committee on Medical-Legal Institute:** James D. Morrison, Chairman, Billings; Donald A. Atkins, Butte; H. M. Clemmons, Butte; John A. Layne, Great Falls; James C. Shields, Butte; Park W. Willis, Jr., Hamilton, Ex-officio.

**Committee on School Health:** Carl W. Hammer, Chairman, Bozeman; Ray O. Bjork, Helena; Charles P. Brooke, Missoula; F. Hanley Burton, Butte; David F. Hall, Butte; Earl L. Hall, Great Falls; Stuart A. Olson, Glendive; Don R. Reed, Anaconda; Raymond E. Smalley, Billings.

**Joint Commission for the Improvement of the Care of the Patient:** C. H. Fredrickson, Chairman, Kalspell; John C. Hanley, Great Falls; E. H. Lindstrom, Helena.

**Nominating Committee for M.P.S. Trustees:** William E. Harris, Chairman, Livingston; Paul J. Gans, Lewistown; Harold W. Gregg, Butte; T. L. Hawkins, Helena; S. C. Pratt, Miles City.

**Resolutions Committee:** Roy V. Morledge, Chairman, Billings; Herbert T. Caraway, Billings; Paul J. Gans, Lewistown; T. L. Hawkins, Helena; F. D. Hurd, Great Falls.

## REFERENCE COMMITTEES OF THE HOUSE OF DELEGATES

**Reference Committee A:** F. D. Hurd, Chairman, Great Falls; H. M. Clemmons, Butte; E. H. Lindstrom, Helena; William F. Morrison, Missoula; Jess T. Schwidde, Billings.

**Reference Committee B:** Paul J. Gans, Chairman, Lewistown; M. A. Gold, Butte; David Gregory, Glasgow; Walter G. Tanglin, Polson; George D. Waller, Jr., Cut Bank.

**Reference Committee C:** Raymond F. Peterson, Chairman, Butte; Albert W. Axley, Havre; Charles P. Brooke, Missoula; Herbert T. Caraway, Billings; S. C. Pratt, Miles City; William H. Sippel, Bozeman; Joseph J. Wier, Big Sandy.

**REPRESENTATIVES TO OTHER STATE AND NATIONAL ORGANIZATIONS**  
**Advisory Committee on Narcotic and Alcohol Education:** Winfield S. Wilder, Great Falls.

**American Medical Education Foundation, Chairman for Montana:** Raymond F. Peterson, Butte.

**Committee on Public Health in the Basic Nursing Curriculum:** Katherine E. Dawson, Helena.

**Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association:** Ray O. Bjork, Helena.

**Montana Committee for the Employment of the Physically Handicapped:** H. M. Clemmons, Butte.

**Montana Health Planning Council:** Walter G. Tanglin, Polson; Philip D. Pallister, Boulder.

**Public Health League of Montana:** James M. Flinn, Helena.

**State Board of Eugenics:** Gladys V. Holmes, Missoula; Edward S. Murphy, Missoula.



# THE COLORADO STATE MEDICAL SOCIETY

Annual Session; September 24-27, Denver

## OFFICERS

Terms of Officers and Committeemen expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** George R. Buck, Denver.

**President-Elect:** Gatewood C. Milligan, Englewood.

**Vice President:** C. Walter Metz, Denver.

**Constitutional Secretary** (three years): James M. Perkins, Denver, 1957.

**Treasurer** (three years): William C. Service, Colorado Springs, 1959.

**Additional Trustees** (three years): Lawrence D. Buchanan, Wray, 1957; Ray G. Witham, Craig, (to fill vacancy) 1957; Terry J. Grouse, Denver, 1958; Bernard T. Daniels, Denver, 1959.

(The above nine officers compose the Board of Trustees of which Dr. Buck is Chairman and Dr. Metz is Vice Chairman for the 1956-1957 year.)

**Board of Councilors** (three years): District No. 1: Osagood S. Philpott, Denver, 1957; District No. 2: Roger G. Howlett, Golden, 1959; District No. 3: Harry C. Bryan, Colorado Springs, 1958; District No. 4: Paul R. Hildebrand, Brush, 1957; District No. 5: John D. Gillaspie, Boulder, 1957; Vice Chairman; District No. 6: Harvey M. Tupper, Grand Junction, 1958; District No. 7: Charles L. Mason, Durango, 1958; District No. 8: Herman W. Roth, Chairman, Monte Vista, 1959; District No. 9: Scott A. Gale, Pueblo, 1959.

**Grievance Committee** (formerly the Board of Supervisors) (two years): Duane F. Hartshorn, Chairman, Fort Collins, 1957; Kenneth H. Beebe, Vice Chairman, Sterling, 1957; Freeman H. Longwell, Secretary, Denver, 1958; Lawrence W. Holden, Boulder, 1957; Robert C. Lewis, Jr., Glenwood Springs, 1957; James S. Orr, Fruita, 1957; Gordon H. Vandiver, La Junta, 1958; Robert H. Smith, Colorado Springs, 1958; George G. Balderton, Montrose, 1958; Ligon Price, Mt. Harris, 1958; Walter M. Boyd, Greeley, 1958; William N. Baker, Pueblo, 1957.

**Delegates to American Medical Association** (two calendar years): E. H. Munro, Grand Junction, 1957; (Alternate, Harlan E. McClure, Lamar, 1957); Kenneth C. Sawyer, Denver, 1958; (Alternate, Irvin E. Hendryson, Denver, 1958).

**Speaker, House of Delegates:** Carl W. Swartz, Pueblo; **Vice Speaker:** Frank B. McGlone, Denver.

**Foundation Advocate:** Walter W. King, Denver.

**Executive Office Staff:** Mr. Harvey T. Sellman, Executive Secretary; Mr. John W. Pompell, Assistant Executive Secretary; Mrs. Geraldine A. Blackburn, Executive Assistant; 835 Republic Building, Denver 2, Colorado; Telephone AComa 2-0547.

**General Counsel:** Mr. J. Peter Nordlund, Attorney-at-Law, Denver.

## STANDING COMMITTEES

**Committee on Constitution, By-Laws and Credentials** (two years): C. C. Wiley, Longmont, 1957, Chairman; Robert C. Lewis, Jr., Glenwood Springs, 1957; John B. Farley, Pueblo, 1957; I. E. Hendryson, Denver, 1957; L. L. Hick, Delta, 1958; E. A. Elliff, Sterling, 1958; John L. McDonald, Colorado Springs, 1958; Robert B. Patterson, Loveland, 1958.

**Health Education** (two years): Jack D. Bartholomew, Boulder, 1957, Chairman; Lewis Baristo, Denver, 1957; John Lichty, Denver, 1957; Dwight Brigham, Greeley, 1957; Leland M. Corliss, Denver, 1958; Edwin T. Williams, Denver, 1958; Walter C. Herold, Colorado Springs, 1958; William S. Abbey, Fort Collins, 1958.

**Subcommittee on School Health:** Jack D. Bartholomew, Boulder, Chairman; Jackson L. Sadler, Fort Collins; William R. Sisson, La Junta; Douglas B. Collier, Wheatridge; Lex L. Penix, Denver.

**Library and Medical Literature** (two years): John R. Evans, Denver, 1957, Chairman; Alvin H. Dahl, Englewood, 1957; W. Grayburn Davis, Denver, 1958; Barton H. Campbell, Arvada, 1958.

**Medical Education and Hospitals** (two years): William A. Liggett, Denver, 1957, Chairman; Myron C. Waddell, Denver, 1957; James F. Hoffman, Fort Collins, 1957; Harry C. Bryan, Colorado Springs, 1958; C. W. Elsie, Denver, 1958; James P. Rigg, Grand Junction, 1958.

**Subcommittee on Medical Student Loan Fund:** J. Robert Spencer, Denver, Chairman; Robert S. Liggett, Denver; Walter M. Boyd, Greeley; Robert J. Glaser, Denver.

**Medical Service** (two years): Fred R. Harper, Denver, 1958, Chairman; W. Grayburn Davis, Denver, 1957; Roy L. Cleere, Denver, 1957; B. T. Daniels, Denver, 1957; William C. Black, Denver, 1957; William B. Condon, Denver, 1958; Robert K. Brown, Denver, 1958; Kester V. Maul, Denver, 1958.

### Medical Service Subcommittees:

**Blood and Tissue Banks:** William D. Millett, Denver, Chairman; John B. Grow, Eugene C. Beatty, S. M. Prather Ashe, Alba R. Glassburn, Jr., Robert G. Bosworth, Jr., Arthur G. Starr, all of Denver.

**Distribution of Physicians:** Samuel P. Newman, Denver, Chairman; Jess H. Humphries, Delta; Hermann B. Stein, Denver; Ward C. Fenton, Rocky Ford.

**Emergency Medical Services:** Roy L. Cleere, Denver, Chairman; Marshall G. Nims, Fred P. Sears, Denver; George S. Maxwell, Boulder; James W. Lewis, Colorado Springs; James D. Stewart, Fort Collins; G. Paul Smith, Grand Junction; David W. Boyer, Pueblo; David R. Barglow, Trinidad; Douglas Collier, Wheatridge; J. Gordon Hedrick, Wray.

**Hospital-Professional Relations:** George R. Buck, Denver, Chairman; Gatewood C. Milligan, Englewood; Robert P. Harvey, Denver.

**Indigent Medical Services:** Fred R. Harper, Denver, Chairman; Jacob Horowitz, Denver; John S. Anderson, Pueblo.

**Intra-Professional Insurance Problems:** Kester V. Maul, Denver,

Chairman; George L. Pattee, Robert L. Gunderson, Bennett W. Muir, Austin Mutz, Denver; David Boyer, Pueblo.

**Medical Care of Veterans:** Robert K. Brown, Denver, Chairman; W. Grayburn Davis, Carl W. Whistler, Denver; Autrey R. Croke, Colorado Springs; Walter M. Boyd, Greeley.

**Physician-Nurse Relations:** William C. Black, Denver, Chairman; Irving H. Schwab, Colorado Springs; Lloyd Florio, Robert M. Maul, Denver.

**Prepayment Services:** Robert P. Harvey, Denver, Chairman; James R. Blair, John M. Grogan, Warren Tucker, George Tynes, Joseph B. McCloskey, Cyrus W. Anderson, Denver; Carl W. Swartz, Pueblo.

**Medicolegal** (two years): C. S. Blumel, Englewood, 1957, Chairman; John G. Gillaspie, Boulder, 1957; Fred H. Hartshorn, Denver, 1957; Samuel B. Childs, Denver, 1958; Horace G. Harvey, Jr., Denver, 1958; W. Walter Wasson, Denver, 1958.

**Necrology** (two years): Lumir R. Safarik, Denver, 1957, Chairman; George A. Unfug, Pueblo, 1957; Frances McConnell-Mills, Denver, 1958; E. H. Munro, Grand Junction, 1958.

**Public Health** (two years): John Zarit, Denver, 1958, Chairman; L. W. Holden, Vice Chairman, Boulder, 1958; John S. Bouslog, Denver, 1957; Joseph E. Cannon, Denver, 1957; Joseph L. Glaser, Denver, 1957; Valentin E. Wohlauer, Brush, 1957; Charles J. Smyth, Denver, 1957; Horace Campbell, Denver, 1958; Franklin G. Ebaugh, Denver, 1958; Jackson L. Sadler, Fort Collins, 1958.

### Public Health Subcommittees:

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**Crippled Children:** Edward L. Binkley, Jr., Denver, Chairman; James A. Johnson, Colorado Springs; Sidney Blandford, Earl Gardell, Denver; Jean McMahon Bremers, Englewood; Ted W. Miller, Pueblo; William F. Stanek, Denver; Harry C. Hughes, Denver.

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**Mental Health:** Franklin G. Ebaugh, Denver, Chairman; E. James Brady, Colorado Springs; Paul A. Draper, Colorado Springs; Lewis Baristo, Edward G. Billings, William R. Lipsecomb, John M. Lyon, Denver; Frank H. Zimmerman, Pueblo.

**Polio Vaccination:** Ward L. Chadwick, Chairman, Mariana Gardner, Joseph Cannon, Denver; Mary Moore, Grand Junction; James Lamme, Jr., Walsenburg; John Lundgren, Julesburg; John Farley, Pueblo; Maurice Snyder, Colorado Springs; Mrs. James Haley, Longmont.

**Rehabilitation:** Joseph E. Cannon, Denver, Chairman; Richard H. Melien, Colorado Springs; Felice Garcia, Herbert S. Gaskill, Denver.

**Rural Health:** Valentin E. Wohlauer, Brush, Chairman; Henry Ziegler, Colbran; Monroe R. Tyler, Denver; Mason Light, Gunnison; Charles Cassidy, Monte Vista; George Balderton, Montrose; Leonard J. Farabach, Pueblo; Henry P. Rhode, Fort Collins; H. Sherwin Johnston, La Junta.

**Rural Health Advisory Committee:** Rev. E. Whittemore, Mr. Arthur L. Anderson, Denver; Mrs. Everett Entz, Monte Vista; Mrs. Edna Eller, Fort Collins; Mrs. Anna C. Petleys, Brush.

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**Public Policy** (two years): Robert P. Harvey, Denver, 1958, Chairman; Harry C. Hughes, Denver, 1957, Vice Chairman; J. L. McDonald, Colorado Springs, 1957; Raymond R. Lanier, Denver, 1957; Eugene Wiese, Greeley, 1957; Harlan E. McClure, Lamar, 1957; Eugene B. Ley, Pueblo, 1957; Sidney Blandford, Denver, 1958; Jackson L. Sadler, Fort Collins, 1958; Harvey Tupper, Grand Junction, 1958; Kenneth H. Beebe, Sterling, 1958; S. M. Prather Ashe, Denver, 1958; "Goat" George R. Buck, Denver, President; Gatewood C. Milligan, Englewood, President-Elect; James M. Perkins, Denver, Constitutional Secretary.

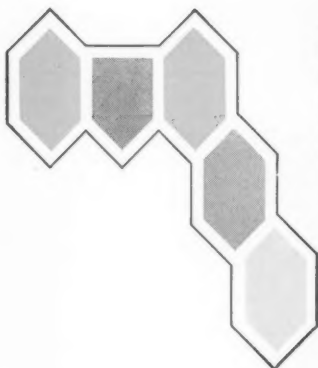
### Public Policy Subcommittees:

**Legislation:** H. I. Barnard, Denver, Chairman; Cyrus W. Anderson, Robert L. Gunderson, Alba R. Glassburn, Jr., I. E. Hendryson, Kenneth C. Sawyer, Denver; John B. Farley, Pueblo.

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**M**ore than two years of clinical evaluation have proven Harmonyl a notably safe and effective agent in cases ranging from mild anxiety to major mental illnesses and in hypertension. Harmonyl exhibited significantly fewer and milder side effects in comparative studies with reserpine—while demonstrating effectiveness comparable to the most potent forms of rauwolfia.

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References: 1. Communication to Abbott Laboratories, 1956. 2. Ferguson, J. T.: Comparison of Reserpine and Harmonyl in Psychiatric Patients: A Preliminary Report, *Journal Lancet*, 76:389, December, 1956. \*Trademark

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**Publicity:** Cyrus W. Anderson, Denver, Chairman; John S. Bouslog, William B. Condon, James Hutchison, Douglas Macomber, Denver.

**Weekly Health Column and Health Articles:** Robert Gordon, Denver, Chairman; Donn R. Barber, Henry C. Cleveland, Stuart G. Dunlop, Robert V. Elliott, L. McCarty Fairchild, W. Stanford Foutz, Joseph R. McCloskey, Mordant E. Peck, Donald K. Perkin, A. I. Rowan, Jr., James E. Strain, Denver.

**Rocky Mountain Medical Conference** (five years): George P. Lingenfelter, Denver, 1957; L. Clark Hepp, Denver, 1958; H. Calvin Fisher, Denver, 1959; Fred Kuykendall, Eaton, 1960; William M. Covode, Denver, 1961.

**Scientific Program** (two years): Donald E. Newland, Denver, 1958, Chairman; Charley J. Smyth, Denver, 1957; H. Harold Friedman, Denver, 1957; John H. Darst, Greeley, 1957; Carl W. Swartz, Pueblo, 1957; Morgan Berthrong, Colorado Springs, 1958; Dale Atkins, Denver, 1958; Albert J. Kukral, Denver, 1958.

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Boulder, 1958, Boulder; Jerome L. Keefe, Cheyenne Wells, 1958, Eastern Colorado; Kon Wyatt, Canon City, 1958, Fremont; John M. Kehoe, Leadville, 1958, Lake; Richard B. Greenwood, Montrose, 1958, Montrose; Thurman M. Rogers, Sterling, 1958, Northeast Colorado; L. S. Sampson, Las Animas, 1958, Otero; Leo W. Lloyd, Durango, 1958, San Juan Basin; Herman W. Roth, Monte Vista, 1958, San Luis Valley; C. B. Willis, Denver, 1959, Fr; Hermann B. Stein, Denver, 1959, Arapahoe; Edward John Sweta, Denver, 1959, Dph; H. Dumont Clark, Denver, 1959, I; Wesley Van Camp, Pueblo, 1959, C; Leo Flax, Denver, 1959, Pd; Eugene Hildebrand, Denver, 1959, Path; Robert K. Brown, Denver, 1959, TS; Stephen B. Phillips, Salida, 1959, Chaffee; L. L. Hick, Delta, 1959, Delta; Kenneth E. Gloss, Colorado Springs, 1959, El Paso; J. M. Lamm, Jr., Walsenburg, 1959, Huerfano; Lee J. Beuchat, Trinidad, 1959, Las Animas; Paul Hildebrand, Brush, 1959, Morgan; H. E. McClure, Lamar, 1959, Prowers; J. Gordon Hedrick, Wray, 1959, Washington-Yuma.

**Military Affairs:** Robert Liggett, Denver, Chairman; Leo W. Lloyd, Durango; Jackson L. Sadler, Fort Collins.

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**Representatives to Executive Committee of the Code of Cooperation:** John S. Bouslog, Denver; Robert P. Harvey, Denver.

**Representatives to Code of Cooperation Committee:** William C. Service, Colorado Springs; Cyrus W. Anderson, John S. Bouslog, George R. Buck, Robert P. Harvey, James M. Perkins, Denver; Gatewood C. Milligan, Englewood; Mr. Harvey T. Seibman, Denver.

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# THE WYOMING STATE MEDICAL SOCIETY

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**President-Elect:** H. R. Anderson, Casper.

**Vice President:** L. Harmon Wilmoth, Lander.

**Secretary:** Benjamin Giltitz, Thermopolis.

**Treasurer:** C. D. Anton, Sheridan.

**Delegate to A.M.A.:** A. T. Sudman, Green River.

**Alternate Delegate, A.M.A.:** B. J. Sullivan, Laramie.

**Executive Secretary:** Mr. Arthur R. Abbey, Cheyenne.

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## COMMITTEES

**Committee for Professional Review:** Charles Lowe, Chairman, 1958, Casper; James Sampson, 1958, Sheridan; George Phelps, 1957, Cheyenne; Russell I. Williams, 1959, Cheyenne.

**Advisory Committee to Selective Service on Procurement and Assignment of Physicians:** Sam Zuckerman, Chairman, 1958, Cheyenne; James W. Sampson, 1957, Sheridan; Richard Stratton, 1959, Green River.

**Blue Cross Trustees:** Eugene Pelton, 1958, Laramie; Frederick Haigler, 1959, Casper.

**Rocky Mountain Medical Conference:** H. L. Harvey, Chairman, 1957, Casper; R. P. Fitzgerald, 1958, Casper; J. B. Gramlich, 1958, Cheyenne; G. W. Koford, 1958, Cheyenne; Brendan Phibbs, 1958, Casper; Earl Whedon, 1958, Sheridan; Wm. Elmore, 1959, Jackson.

**Public Relations Committee:** L. H. Wilmoth, Chairman, Lander; S. J. Gioiale, Cheyenne; S. H. Worthen, Afton; and: All 1956 County Medical Society Presidents.

**Maternal Welfare:** B. J. Sullivan, Chairman, Laramie; W. M. Franz, Newcastle; W. H. Penneyer, Cheyenne; Clark Young, Casper.

**Child Health Committee:** Tom S. Harris, Chairman, Laramie; L. J. Cohen, Cheyenne; Robert M. Fowler, Casper; E. C. Ridgway, Cody.

**Cancer Committee:** Charles L. Lowe, Chairman, Casper; John Gramlich, Cheyenne; Dan B. Greer, 1957, Cheyenne; Franklin Yoder, 1957, Cheyenne; Jack Rhodes, 1958, Sheridan; George Knapp, 1959, Casper; Benjamin Giltitz, Thermopolis.

**Mental Health Committee:** Don W. Herrold, Chairman, Cheyenne; William Rosene, Wheatland; Joseph Whalen, Evanston; Franklin Yoder, Cheyenne.

**Medical Economics Committee:** Brendan Phibbs, Chairman, Casper; J.

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**Advisory Committee to Woman's Auxiliary:** Wilber Hart, Chairman, Casper; Robert Black, Cheyenne; Edward Guilfoyle, Newcastle.

**Public Policy and Legislation:** Norman R. Black, Chairman, 1957, Cheyenne; E. C. Pelton, 1957, Laramie; L. H. Wilmoth, 1957, Lander; R. P. Fitzgerald, 1958, Casper; G. W. Koford, 1958, Cheyenne; J. W. Sampson, 1958, Sheridan; W. Andrew Buntin, 1959, Cheyenne; Brendan Phibbs, 1959, Casper; Sam Zuckerman, 1959, Cheyenne.

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**Council on National Emergency Medical Service Civil Defense:** George Phelps, Chairman, 1958, Cheyenne; E. W. DeKay, 1957, Laramie; John J. Wild, 1957, Sheridan; Roscoe H. Reeve, 1958, Casper; Benjamin Giltitz, 1959, Thermopolis; Bernard Stack, 1959, Riverton; Richard Stratton, 1959, Green River.

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**American Medical Education Foundation:** Benjamin Giltitz, 1958, Thermopolis; E. E. Callaghan, Riverton; Donald Daines, Evanston; Robert Fowler, Casper; Howard Greaves, Rock Springs; David Gregg, Greybull; Norman B. Hailey, Laramie; J. E. Hoadley, Gillette; E. George Johnson, Douglas; E. W. McNamara, Rawlins; S. Thielman, Sheridan; W. H. Penneyer, Cheyenne; J. B. Volk, Torrington.

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**Time and Place Committee:** H. B. Anderson, Chairman, Casper; Chairman of Delegation from Northwestern Society; Chairman of Delegation from Natrona County; Chairman of Delegation from Converse County; Chairman of Delegation from Goshute County.

## THE WYOMING STATE MEDICAL SOCIETY

**Resolutions Committee:** President-elect, H. B. Anderson, Chairman; Vice President, L. H. Wilmoth; Chairman of the Delegation from Laramie County; Chairman of the Delegation from Uinta County; Chairman of the Delegation from Northwestern Society; Chairman of the Delegation from Sheridan County.

**Nominating Committee:** President, Chairman; Secretary and Treasurer; Past Presidents; Past Secretaries; Past Treasurers; Chairman of the Delegation from Albany County; Chairman of the Delegation from Carbon County; Chairman of the Delegation from Sweetwater County; Chairman of the Delegation from Laramie County.

**Parliamentarian:** H. B. Anderson, Casper.

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**Historical Committee:** Francis A. Barrett, Chairman, Cheyenne; William Hinrichs, Douglas; James W. Sampson, Sheridan; Franklin D. Yoder, Cheyenne.

**Constitution and By-Laws Committee:** H. B. Anderson, Chairman, Casper; William Hinrichs, Douglas; Ted Holman, Casper; William Rosene, Wheatland.

**Cardiovascular and Renal Diseases:** A. J. Allegretti, Chairman, Cheyenne; Lloyd Evans, Laramie; Charles Lowe, Casper; Seymour Thickman, Sheridan.

**Arthritis Committee:** Myron Harrison, Chairman, Rock Springs; David M. Flitt, Cheyenne; Chester Ridgway, Cody.

**Blue Shield Fee Schedule Committee:** Anesthesiology: Latham B. Lawton, Casper; Anesthesiology: Charles H. Moore, Cheyenne; General Surgery: John B. Gramlich, Cheyenne; Internal Medicine: Lloyd R. Evans, Laramie; Neuro-psychiatry: Don W. Herrold, Cheyenne; Obstetrics & Gynecology: Bane T. Travis, Cheyenne; Alternate: Robert H. Bowden, Casper; Ophthalmology: O. L. Veatch, term expires 1957, Sheridan; J. G. Wanner, term expires 1958, Rock Springs; R. D. Tobbet, term expires 1959, Casper; Orthopedics: Gordon Whitson, Casper; Otolaryngology: Charles R. Kudalla, term expires 1958, Casper; Pathology: S. S. Zuckerman, Cheyenne; Pediatrics: Robert M. Fowler, Casper; Radiology: James W. Barter, Cheyenne; Urology: Joseph E. Clark, Casper; General Practitioners: Albany County, B. J. Sullivan, Laramie; Carbon County, R. A. Corbett, Saratoga; Converse County, E. Geo. Johnson, Douglas; Fremont County, Bernard Stack, Riverton; Goshute County, Joseph R. Volk, Torrington; Alternate: D. C. Reed, Torrington; Laramie County, S. J. Gloride, Cheyenne; Natrona County, K. N. Roberts, Casper; Sheridan County, Louis Bouch, Sheridan; Sweetwater County, John P. McRae, Rock Springs; Uinta County, J. H. Holland, Cheyenne; Northwest Wyoming, E. J. Guilfoyle, Newcastle; Northwest Wyoming, John H. Froyd, Worland.

**Committee on Industrial Medicine:** R. H. Reeve, Chairman, Casper; Jack B. Bennett, Evanston; Albert Sudman, Green River.

\*Elected Committee Members.

## NEW MEXICO MEDICAL SOCIETY

### OFFICERS

Terms of Officers expire at the Annual Session in the year indicated. Where no year or term is indicated, the term is for one year only and expires at the 1958 Annual session.

**President:** Samuel R. Ziegler, Espanola.

**President-Elect:** James C. Sedgwick, Las Cruces.

**Vice President:** Lewis M. Overton, Albuquerque.

**Secretary-Treasurer:** Omar Legant, Albuquerque.

**Executive Secretary:** Mr. Ralph R. Marshall, 302 First National Bank Building, Albuquerque; telephone 2-2102.

**Immediate Past President:** Stuart W. Adler, Albuquerque.

**Councillors** (three years): W. O. Connor, Jr., Albuquerque, 1958; L. L. Daviet, Las Cruces, 1958; Aaron Margulis, Santa Fe, 1959; Julius A. Evans, Las Vegas, 1959; Gerald Slusser, Artesia, 1960; George Prothro, Clovis, 1960; Wendell Peacock Farmington, 1960.

**Delegate to American Medical Association** (two years): H. L. January, Albuquerque, 1958; alternate, Earl L. Malone, Roswell, 1958.

**Grievance Committee:** Louis Levin, Belen, Chairman, 1958; Jack Dillahun, Albuquerque, Secretary-Treasurer, 1958; A. B. Madhok, Las Cruces, 1958; G. A. Slusser, Artesia, 1958; William Bosley, Deming, 1960; Piero Salmon, Roswell, 1960; Alfred Jensen, Hobbs, 1959; James McCrory, Santa Fe, 1959; William Natoli, Los Alamos, 1958.

**New Mexico Physicians Service:** Wendell Peacock, Farmington, President, 1958; H. M. Mortimer, Las Vegas, 1960; R. P. Boudette, Raton, 1958; R. V. Seligman, Albuquerque, 1958; Omar Legant, Albuquerque, 1958; Allen Haynes, Clovis, 1959; W. L. Minton, Lovington, 1959; J. P. Turner, Carrizozo, 1959; U. S. Marshall, Roswell, 1959; J. W. Hillman, Carlsbad, 1959; Angus McKinnon, Albuquerque, 1960; James Wiggins, Albuquerque, 1960; Andrew Babey, Las Cruces, 1960; John Abrams, Albuquerque, 1960; Executive Director, Mr. L. J. LeGrave, 212 Insurance Building, Albuquerque, Phone 3-3188.

### COMMITTEES

**Nominating Committee:** Julius Evans, Taos, Chairman; Albert Rosen, Taos; Stuart Adler, Albuquerque; John F. Conway, Clovis; Earl Malone, Roswell; Sidney Baker, Silver City; Vincent Arcadi, Gallup.

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### OFFICERS, 1956-1957

**President:** Robert A. Pontow, Colorado General Hospital, Denver.

**President-Elect:** Roy Prangely, St. Luke's Hospital, Denver.

**Vice President:** Msgr. John R. Mulroy, Catholic Hospitals, Denver.

**Treasurer:** Walter Dubach, Children's Hospital, Denver.

**Trustees:** Harry Clark (1957), Southwest Memorial Hospital, Cortez; Elton A. Reese (1957), Alamosa Community Hospital, Alamosa; Roy Anderson (1957), Presbyterian Hospital, Denver; C. Franklin Fielden

(1958), Memorial Hospital, Colorado Springs; Lewis Liswood (1958), National Jewish Hospital, Denver; Milton Speicher (1958), Wray Community Hospital, Wray; John Peterson (1959), Larimer County Hospital, Fort Collins; Hubert Hughes (1959), General Rose Hospital, Denver; Jacob Horowitz (1959), Denver General Hospital, Denver.

**Blue Cross Representative on Board of Trustees:** Glenn Saunders, Denver.

**Delegate to the American Hospital Association:** H. E. Rice, Porter Sanitarium and Hospital, Denver; Alternate Delegate: H. H. Hill, Weld County Hospital, Greeley.

## ARMY ANNOUNCES LARGEST MEDICAL INTERN TRAINING GROUP

Army hospitals in this country and overseas will welcome 164 graduates from seventy-one approved medical schools as interns for the year, beginning July 1. The interns represent all sections of the United States and were selected by the Army Medical Service in participation with the sixth National Intern Matching Program.

These physicians will be commissioned First Lieutenants in the Army Medical Corps upon entering the service and at the close of the one year internship will become Captains if they remain in the service. Among those selected are 118 participants in the Army Medical Service Senior Student program.

The increase for 1957 is accounted for by the extension of intern training to the U. S. Army Hospital at Fort Benning, Ga. It is planned to

expand further these openings during the next few years through the addition of more hospitals to the program.

Other hospitals presently participating are: Walter Reed Army Hospital, Washington, D. C.; Letterman Army Hospital, San Francisco, Calif.; Fitzsimons Army Hospital, Denver, Colo.; Madigan Army Hospital, Tacoma, Wash.; William Beaumont Army Hospital, El Paso, Texas; Valley Forge Army Hospital, Phoenixville, Pa.; Brooke Army Hospital, Fort Sam Houston, Texas; and Tripler Army Hospital, Honolulu, Hawaii.

Reflecting the national trend towards earlier marriage and larger families, 73 per cent, or 121, of the interns are married. Of this group, over half have children; thirty-three having one child, twenty-one having two children, four having three children and two having four children. The remaining sixty married interns have none.

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FOR SALE—Medical instruments and equipment. Doctor, retired, selling all or part at half price. Telephone East 2-8518. 63

FOR SALE—Desirable office and living quarters with ample parking facilities, wonderful mountain view, on main thoroughfare in Wheatridge-Denver area. Contemporary designed in area of expensive homes. Burdett Jones Realty, 5110 West 38th Ave., Denver; GLendale 5-3688. 64

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BOARD CERTIFIED Orthopedic Surgeon looking for physician who has just finished his internship and would be interested in working as his assistant for one year in Colorado. Please write Box 6-1, 835 Republic Building, Denver 2, Colorado. 66

MEDICAL-DENTAL Building will be completed July 1 in Broomfield Heights. Space for rent will be available. Contact L. Gordon, M.D., 401 East Cleveland, Lafayette, Colo. Phone CANal 5-5577. 62

EXCELLENT LOCATION in new air-conditioned strictly professional building in fastest growing community in suburban area of Denver. Leases available to physicians and dentists. For information call GEnessee 3-3796 or write Mr. Al Wamboldt, 4845 Golden Court, Denver 12, Colorado. 66

PHYSICIAN completing residency in July desires locum tenens through August. Northern Colorado community preferred. Write Box 6-2, 835 Republic Bldg., Denver 2. 67

GENERAL SURGEON—38: Board certified; university trained; fifteen months' private practice, then four years in service as deputy chief and chief, surgical services; teaching experience; Colorado license; desires clinic, group, or partnership association. Box 4-2, Republic Bldg., Denver 2, Colorado. 68

WANTED—Well-qualified General Practitioner immediately for town of 1,000, N.E. Wyoming, drawing area of 2,500. New modern clinic, reasonable rent or buy, available housing facilities. New modern hospital available 28 miles. Box 468, Upton, Wyoming. 44

COLORADO GRADUATE, Colorado licensed, aged 30, just completing residency in internal medicine, desires association with group or opportunity for solo practice in Rocky Mountain region. Please reply to box 43-2, Rocky Mountain Medical Journal, 835 Republic Building, Denver, Colo. 69

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# EDITORIALS

A NEW product has just come on the market. It may never produce much profit for its manufacturer or become very popular, but it deserves editorial attention. It

## *New Safety in Rabies Prevention*

is a new rabies vaccine produced from duck embryos, and has been quietly announced by Eli Lilly and Company, a pharmaceutical house noted for its painstaking research, particularly in the field of biologicals. The work on the new vaccine was done by Peck, Powell, and Culbertson, and it is a suspension of embryonic duck tissue infected with fixed virus to which a virucidal agent has been added. The individual doses come as dry powder in vials to which 1 cc. of water is added. One cc. of reconstituted vaccine is administered subcutaneously each day for fourteen days.

The advantages of this vaccine as compared to the Pasteur brain tissue vaccine are as follows:

1. No brain tissue is in the vaccine; therefore it contains little or no paralytic factor. Absence of the paralytic factor removes one of the true hazards of rabies therapy.
2. The material remains usable for eighteen months if refrigerated, instead of expiring in six months.
3. Local reactions are not so severe as with the previous vaccine.
4. The virus is a killed virus, not an attenuated live virus, so there is not even a theoretical possibility of clinical rabies resulting.

This new vaccine simplifies the decision as to its indications. In the case of severe bites, particularly around the head and neck, rabies antiserum should be used concomitantly because the shortened incubation period would not permit the development of antibodies before the onset of clinical disease.

The management regime of those allegedly exposed to rabies remains the same as

outlined by the World Health Organization Expert Committee on Rabies in 1950:

I. For indirect contact with no lesions, no treatment is advised, regardless of whether the animal is healthy or rabid.

II. A. For licks on the unabraded skin, no treatment is advised, whether the animal is healthy or rabid.

B. For licks on abraded skin or on mucosal surfaces, the following procedures are recommended:

1. If the animal is healthy, withhold treatment.
2. Observe the animal for ten days and start vaccine treatment at the appearance of first suspicious signs of rabies.
3. If the animal that licks the person has suspicious signs of rabies at that time, start vaccine treatment immediately, but observe the animal for ten days. If it becomes healthy and remains normal for three days, stop further treatment.
4. If the animal is rabid, if it escapes or is killed, or if its subsequent condition is unknown, start vaccine treatment immediately.

III. For actual bites by a dog or other animal, the following procedures are recommended:

A. If the animal is healthy at the time but the bites are multiple or are on the face, head, or neck, begin treatment immediately; stop injections, however, if the animal is known to remain normal for three days. For other bites by an apparently healthy animal, withhold treatment, but observe the animal for ten days.

B. If during the ten-day observation period the animal is proved to have rabies or becomes clinically suspicious, start vaccine treatment immediately.

C. If the biting animal has suspicious signs of rabies at the time of the bite, start vaccine treatment immediately, but stop injections if during the next ten days the animal becomes normal and remains so for three days.

D. If the animal is rabid, if it escapes or is killed, or if it is unknown, start vaccine treatment immediately. Any bite by a jackal, wolf, fox, or other wild animal is an indication to start vaccine treatment immediately.

E. For bites around the face and neck or severe bites elsewhere by an animal known to be rabid, administer rabies antiserum. This hyperimmune serum should be given within the first twenty-four hours, preferably within the first six hours, after the bite. A full course (fourteen daily injections) of rabies vaccine should also be started immediately.

One wonders why it took so long to make such an important advance in rabies prevention. Perhaps because no one previously dared mention hydrophobia, "fear of water," and ducks in the same breath. But with Lilly dabbling in the duck-pond the problem proved no obstacle!

**C**HOLESTEROL, well known today by physician and layman alike, yesterday was only dimly recognized even by us. We knew that one variety of gallstones was made of

### *Cholesterol— Friend or Foe*

cholesterol and little more. Today, with the accumulation of much circumstantial evidence indicting cholesterol in the crime of atherosclerosis and coronary occlusion, we all wish we could reach out our vital pipes and rid them of the sludge of cholesterol that has already accumulated. Finding this impossible, we hope to prevent new plaque formation by decreasing the circulating liquid supply pool of cholesterol.

Strict low fat diets may help but they are unpopular, unpalatable, and frequently unrewarding. Low cholesterol diet alone does not accomplish the trick since much of our body's pool of cholesterol is synthesized from other food substances. Normally we ingest about one-half gram of cholesterol daily but our bodies construct twice that amount internally, even if cholesterol intake is zero.

The drug companies have heard the anguished cries and are embarking in the new competitive field of anti-cholesterol

drugs. Two products are worthy of discussion. Vastran Forte (Wampole Laboratories) looks at first glance like another multivitamin preparation. The difference is in the huge nicotinic acid content (375 mg. instead of the usual 10 to 100 mg.). The recommended dosage is eight capsules daily, a total of 3,000 mg. The medication is taken with meals to slow absorption and cut down the bright flush that occurs with high dosages of niacin.

Why does niacin reduce blood cholesterol levels? The reason is not well established but apparently it increases oxidation of cholesterol. Cholesterol reduction of 20 per cent or more is claimed when the initial level is over 250 mg. per cent (normals are 150-250 mg. per cent). The other vitamins present in Vastran Forte are not present entirely facetiously. Ascorbic acid is present to prevent possible scurvy symptoms which sometimes are seen with intensive nicotinic acid therapy. The other vitamins are present because of the frequency of strict low fat and reducing diets in the regimen of the atherosclerotic patient.

The other product is Cytellin (Eli Lilly and Company), a 20 per cent suspension of mixed B sitosterols, unsaturated lipids such as are found in vegetable oils. The so-called harmful fats are highly saturated and are primarily animal in origin. One tablespoon of the suspension (3 gms. of sitosterols) is taken with each meal. One pint lasts eleven days.

How do the sitosterols reduce blood cholesterol? Probably by uniting with dietary cholesterol the sitosterols form a large mixed crystal which, being unabsorbable, is passed on in the stool. Dietary cholesterol, therefore, never gets to the body's stores. In addition, the endogenously formed cholesterol is picked up as it is excreted in the bile before it can be reabsorbed into the blood stream and it too is passed on in the stool. There are no known side effects in taking Cytellin. Dietary restrictions can be left up to the individual, but dietary excesses should be covered by extra doses of the medication.

With luck, and the new drugs, perhaps we can abandon our "C'est sera, sera" attitude and live a little longer.

## *This Changing Environment\**

Samuel R. Ziegler, M.D.

ESPANOLA, NEW MEXICO

**I**T IS with a feeling of deep humility that I come before you today. I am fully aware of the honor you have bestowed upon me. I hope and pray that I shall be able to prove myself worthy of this confidence. I am also aware that with honor comes responsibility—responsibility which you have a right to expect me to discharge with dispatch and distinction. Let me assure you that I shall endeavor to do this to the best of my ability.

On such an occasion as this, one is expected to orate on some social or health problem which confronts society today. Instead, I should like to survey with you for a few moments our changing environment—an environment which, in little more than a half century, has altered the pace at which we live from the leisurely stride of a horse and buggy to the roaring speed of a supersonic jet.

### **Medical Practice 1900 A.D.**

At the turn of the century, the busy physician limited his pace to that of his horse. In most instances his office was part of his home and the telephone, although invented twenty-five years earlier, had not yet become the indispensable convenience in the average home. There were almost no hospitals in small communities and only the seriously ill were sent to such institutions in the larger centers. Disease brought about an extremely close and stable doctor-patient relationship. To the family, especially in isolated communities, the physician was internist, surgeon, psychiatrist and obstetrician. They were dependent solely upon him.

\*Presidential Address presented before the 75th Annual Session of the New Mexico Medical Society, May 15, 1957, Santa Fe.

(Even recently Dr. Paul R. Hawley re-emphasized "Every family needs a medical adviser upon whom it can rely, whether or not such a need is recognized. The family physician is the only practitioner of medicine who can fill this role properly. . . .")

Now all but six-tenths of one per cent of our population live within twenty-five miles of a doctor, and today's high speed automobile has reduced that twenty-five miles to a matter of minutes. With this change, medicine and its rapidly developing specialties became centralized in larger communities about larger and better equipped hospitals and the family doctor, as he had once been known, became a picture on the wall.

### **Modern Medicine**

Our changing environment has fostered advances in medicine, which in turn have produced changes in our environment. The average life expectancy, at the turn of the century, was forty-six years. Now the average life expectancy is sixty-five years or more. The problems of caring for a greatly increased elderly population are not simple either sociologically or medically. The very distribution of our disease problems has changed radically. Pneumonia is no longer "Captain of the Men of Death," thanks to the miracle of antibiotics. Tuberculosis is vanishing from the scene and typhoid fever is a rarity. Neonatal and infant mortality is decreasing and more young people enter and remain in our ranks and population figures increase by leaps and bounds. Cardiovascular diseases, other degenerative diseases and cancer (which in years past were relatively minor killers), now crowd our thoughts.



### Medical Specialties

Rapid progress in medical research and discovery has made it impossible to keep up with all the detailed advances. Because of this, more men in recent years have restricted themselves to special phases of medicine and in larger communities, in order to better utilize their skills and increase their earning capacities rather than cope with the more diffuse and more incessant, demanding and less remunerative aspects of a general practice in a small community. It is not an unusual occurrence to pick up a magazine and read about the young doctor who has left his beloved small community and his general practice to specialize, and invariably the reasons given are that the individual could no longer face the rigors of his practice—had too little time with his family, or got too little in return for services rendered.

I do not mean by these remarks to belittle the specialist in any way. He is an important and absolutely necessary part of the practice of medicine today. Medical service would not have made such improvements without him. The trend is more the result of, rather than the source of, the changes in our sociological environment.

### Socio-Economic Shift

This trend in medicine has accompanied the change from a predominately rural to a predominately urban existence. I shall mention a few factors which it seems to me have contributed to this change: (1) Rapid increases in population, (2) more attractive jobs in the larger centers, (3) the difficult plight of the farmer and rancher, and (4) the increased conveniences in our larger communities. Such changes in our social order cannot help but be reflected in the practice of medicine.

### Rural Communities

The small community has concomitantly suffered the loss of a convenient and adequate medical service. In recent years, some medical schools have attempted to inspire and prepare young physicians to practice efficiently in small communities. The small community itself has accepted the challenge in many instances and, awakening to its

right to have up-to-date medical facilities, has utilized local or federal resources to construct its own community hospitals. Even then, such communities have at times experienced difficulty in attracting physicians.

### Service vs. Security

A recent survey of young men and women nearing the completion of their college courses revealed that an astoundingly small number of them were interested in the service of professions. Medical schools are not now getting enough well-qualified students. Young people seem much more interested in security than service. We physicians must help these young people to understand the rewards of such service and to sense the great personal stimulation and satisfaction that come from it. We must meet this challenge.

With all this change there has grown up a generation which has come to expect a great deal for little or nothing.

### The Changing Scene

But I wonder, as we look at ourselves critically, have the changes in our environment, the idea of something for nothing, the tremendous advances in medical knowledge, been solely responsible for our problems? What about the pressures for changed forms of medical practice, the increasing number of malpractice suits, the increasing criticisms all too frequently hurled at us?

### Patients—Humans or Machines?

Have we become cold and impersonal in the rush of our practice? Have we forgotten the close bonds which should exist between patient and physician? Do we forget the human side and all too often deal with the patient as some sort of machine with no feelings or emotions? Have we become too busy in our offices to make that urgent house call? Is it easier in this day of modern transportation to tell the patient to meet us at the hospital emergency room instead of the more personal atmosphere of his home? Are we too busy or too disinterested to participate in a public relations program? Have we become apathetic about everything but making a living for ourselves?

### **Time for Relaxation?**

Too, it is difficult for most physicians to feel relaxed at any moment. Because of the many demands of his complex life the doctor's reading time is cut short. He has all too little time with his family, and the weight of many responsibilities concerning life and death leave him preoccupied and many times a silent and uninteresting companion for those who wait about the supper table for him. In "The Doctor Has Three Faces," he is aptly described as someone who is known to his family as "a ring of the phone, a stir in the hall and a slamming door." Through all this has part of our traditionally close doctor-patient relationship been lost? Has the revered place of the doctor in the patient's home slipped to a more impersonal level? I do not make these remarks as statements of fact, but rather pose them as questions. Have these things really happened?

### **Costs Increasing**

The increasing population has increased problems of office and hospital care. The rapidly increasing cost of living has skyrocketed the cost of hospital care and increased office overhead. We have been accused of overcharging, although a review of average doctors' fees will reveal them to be only insignificantly increased over 1940, since when the cost of living has increased over 100 per cent. We have been accused of inability to properly care for the needy and that hospital expenses have become so great they are out of reach of the average family. Over our heads has consequently been hung the threat of socialized medicine as a "solution" for a public, uneducated in the pitfalls of "government medicine," again construed as "something for nothing."

### **Personal Public Relations**

In partial answer to this challenge, voluntary medical insurance has been supported and many plans have been pondered and discarded only to be reconsidered and again discarded, in search for a more satisfactory answer. An active public relations program has been instituted, initiated by the A.M.A. and filtered down to our local societies. We

are encouraged to discuss more freely with patients our fees and our diagnoses, and out of all these problems which have been mentioned, have come many admonitions to today's physicians.

### **Physician-Citizen**

Dr. Elmer Hess, in a recent address, said, "The physician must not only have the narrow concept that he is a physician but the all-important concept that he is a physician-citizen with all the obligations and responsibilities that go with it. He must put service before remuneration, he must have a strong faith in spiritual values, he must take an active interest in all educational programs within the community and should be active in the Chamber of Commerce."

### **"Counsel of Perfection"**

Governor Arthur B. Langlie said in his address to the mid-winter A.M.A. session in Seattle, "We are living in a sick world and doctors must take time to contemplate the broader face of problems that plague this country and the world." In his presidential address before the North Central Medical Conference, Dr. P. H. Woutat of Grand Forks, N. D., in a 500-word definition of a modern physician entitled, "Counsel of Perfection," had this to say: "The ideal physician must, of course, be of fine and scholarly appearance, have great intellectual capacity and faultless personal habits, and inspire the confidence of his patient and the respect of all others. He must be active in local and state medical societies, attend meetings regularly and accept officership and committee assignments eagerly, and perform his duties quickly and with great tact and diplomacy." He went on to say (and I am sure this made him quite popular among the ladies)—"He must be a good family-man and he must have a wife who is gracious and tactful and who abhors mink coats and other vulgar extravagances. He must spend lots of time at home with his children."

### **"Then Welcome Each Rebuff"**

What then is our answer to the challenge of changing medical practice and our changing environment? In the words of Dr. Mur-

ray, A.M.A. President—"Today the Medical Profession along with business and industry is caught between those who desire to promote sound government and those who desire even more intensely to perpetuate party power. Unfortunately in recent years a benevolent federal government appears more attractive to the voting public than the preservation of individual freedom."

In this respect we have met rebuffs but, in our philosophy of life, I think we would find Browning's words a stimulation—

Then welcome each rebuff

That turns earth's smoothness rough

Each sting that bids nor set nor stand  
but go—

Some fifty-four years ago on January 6, 1903, Sir William Osler spoke these profound words before the New Haven Medical Association. These words seem to me to remain quite applicable today—"For better or worse there are few occupations more satisfying than the practice of medicine, if man can but once get oriented and bring to it the philosophy of honest work, the philosophy which insists that we are here not to get all we can out of life about us but to see how much we can add to it. The discontent and grumblings which one hears have their source in man more often than in his environment."

#### **Patient and Professional Freedom**

Part of the answer lies within each one of us. We must make each person feel that he *wants* to continue having freedom of choice of a doctor and that freedom of conduct within the medical profession is maintained, and that this is the only good way. We must dedicate ourselves to this task. Dr. Murray in his November speech said, "If I had just one wish for the coming year, it would be to command the time and talents of the 160,000 physicians in the A.M.A. I would set us all to the task of re-emphasizing the absolute necessity of patient and professional freedom. Let us never reduce the quality of service we render to our patients and never lose the personal touch in medicine. Where there is any opportunity to improve upon our medical care, let us seize it and show our abilities to do an outstanding job. Satisfied

patient-customers will give us deserving support when we need it."

#### **Strength in Organization**

Certainly our first line of defense is our individual attitude and conduct, but that alone is not enough. We must also use our organized strength. In November of last year, I had the pleasure of attending the mid-winter meeting of the A.M.A. as a representative of this group. I was impressed by the unselfish purpose of the men I saw in action. I was impressed by their desire to maintain freedom of choice of physician and freedom in the conduct of medical practice. I was most impressed by their consideration of the patient, his emotions, his dignity and his protection. I was deeply stirred by their unselfish giving of time and effort to achieve the ideals of our profession.

#### **Cooperative Effort**

I realize that a physician's livelihood is dependent on himself, and the time he spends away from an active practice he pays for dearly.

It therefore becomes easy for the younger man to say, "I cannot afford the time away from practice," and the older man to say, "I have done my part, let someone else do it." It will take the wholehearted effort of us all. We cannot become apathetic.

#### **Sympathetic Understanding**

It has been said that we must remember, too, that the destiny of medicine can be determined to a large degree in the halls of Congress; which behooves us to take an even greater interest in Congressional elections. Sympathetic understanding of our position by federal legislators will be an insurmountable deterrent to the forces supporting state medicine.

#### **Take the Initiative**

Governor Howard Pyle, Administrative Assistant to the President, said last year before the annual meeting of State Society Presidents, "Those with whom you do not agree will be arguing for things. Be prepared to do likewise or risk fatal failure. Be prepared to take the initiative with wiser and better plans. There is little percentage in coming from behind in areas

where we know there is going to be a constant and continuing pressure as the years and days go on."

If we are to see freedom of choice of physician and medical conduct survive, if we are to stave off the inroads of socialized medicine with its federal control and high administrative costs, we cannot wait for an attack and then counterattack. We must take the initiative and must provide able and successful leadership in this direction. Basically, the answer to the problem lies with each of us as individuals, for it is the close relationship between the patient and his doctor which in the final analysis will be the foundation for the continuation of our present system of medical practice.

### Objectives

I should like to set these several goals for the coming year: First of all, I should like to see our state and local public relations programs expanded. I feel that our Public Relations Committee has done an excellent job in the past year. I do not think, however, that the response from the members of the society was as good as it might have been. I should like to see the Public Relations Committees of the local societies work more closely with out-state committees and express more fully their ideas and desires. I should like to see the initiation and active promotion of indoctrination programs of a more intense and thorough nature in all county societies. This I do not think is a final function of your state society, but something which should be handled at the level of the county society, to meet the local needs. One of our own members, Dr. Babey, from Los Cruces, has

very ably outlined this problem in the March, 1957, publication of *Southwestern Medicine*, and I refer that article to you as very good reading. I should like to see all of us rededicate ourselves to the proper ethics of our profession and to re-emphasize in our minds the spiritual values which Dr. Hess so succinctly expressed, for without these spiritual values the service which we render will be cold and meaningless.

### Your Talents Are Needed

In order for us to function efficiently as a state society, certain committees are necessary. Many of you have already been approached concerning these committees. Many of you have been asked to serve again. Your personal influence and ideas are absolutely necessary to the continued success of these committees. Some new faces will appear because we think your experience and talents are needed. I ask your help and sincere cooperation in attempting to accomplish the task we have set out to do.

In closing I should like to quote again from Governor Pyle's address. He ably illustrates the situation in the historical cycle of other peoples in other times.

The rise has been  
From bondage to spiritual faith  
From spiritual faith to courage  
From courage to freedom  
From freedom to abundance  
From abundance to selfishness  
From selfishness to apathy  
From apathy to dependency,  
From dependency back to bondage.

Where are we now in relation to this cycle?

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### PAN-PACIFIC SURGICAL ASSOCIATION

The Seventh Congress of the Pan-Pacific Surgical Association will be held in Honolulu, Hawaii, November 14-22, 1957. All members of the profession are cordially invited to attend and are urged to make arrangements as soon as possible if they wish to be assured of adequate facilities.

An outstanding scientific program by leading surgeons, with sessions in all divisions of surgery and related fields, promises to be of interest to all doctors.

Further information and brochures may be obtained by writing to Dr. F. J. Pinkerton, Director General of the Pan-Pacific Surgical Association, Room 230, Young Building, Honolulu, Hawaii.

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### HEALTH NOTES—

Since 1900 heart disease has become more than ever a disease of middle and old age, Health Information Foundation says. Today about 70 per cent of all deaths from this disease take place at ages 65 and over.

# The Economic and Moral Challenge To Medicine\*

Morris K. Crothers, M.D.

SALEM, OREGON

*Prepaid medical care is with us, and will stay with us, whether we like it or not. This is a plea for doctors to provide prepayment plans themselves which are so excellent as to obviate the need for, and prevent the growth of, the more dictatorial plans. The description here of some of the West Coast plans will serve as an eye-opener to us. Oregon's answer to the problem through their Blue Cross-Blue Shield contract is especially interesting.*

IF WE accept the premise that medical care will be more and more bought on a prepayment basis, and this seems inescapable whether we like it or not, whether we think it wise or not, in the American tradition or the evil spawn of a foreign ideology, we then must seek the answer to three questions.

1. What is the per cent of the total medical bill that can be prepaid?

2. What financial organizations will be most successful in developing the mechanism of prepayment?

3. What forms of medical practice are best adapted to the delivery of medical care on a prepaid basis?

## Broader Benefits

The idea that clearly defined incidents, such as surgical or acute medical disorders requiring hospitalization, can be considered insurable events and subject to prepayment is now generally accepted in our profession, though this was not always so. However, when we attempt to provide diagnostic services, especially outside the hospital, we

are obviously violating traditional insurance principles. But it seems that we are going to be forced more and more to provide these services on a prepayment basis. There is evidence all about us that pressures are being brought upon us to do this. Last year at the Western Conference Meeting, Mr. Harry Becker, once of the C.I.O. United Auto Workers, read a paper in which he offered a compendium of opinions gathered from labor leaders. These men were, overwhelmingly, in favor of broader benefits and service benefits. Now on the West Coast, particularly in Washington and Oregon, we have been accustomed for many years to service benefits, and rather broad benefits. For many years we have provided home and office visits, almost unlimited diagnostic services in the doctor's office for employed members. Recently we have begun offering the same range of services for family members. This is not because the physicians in the Northwest are more far-seeing than those in other parts of the country, or more public spirited, or have any other virtues that other physicians do not have, it is simply because competition, commercially sponsored plans in the lumber industry, years ago forced the doctors to provide this kind of service through their own plans. You are beginning to see the

\*Presented at the 86th Annual Session of the Colorado State Medical Society at Estes Park, September, 1956. Dr. Crothers is the President of Oregon's Blue Shield organization.



same thing now in the rest of the country. If we really believe in the free enterprise, competitive system, we will have to admit there is some virtue and some gain to the general public from this kind of competition even though it may force us to do things that from our traditional point of view we at first think are not wise.

### Profession Challenged

One of the things that Harry Becker told us was that union leaders were going to be bargaining with management for the provision of service benefits for medical and surgical care. I asked Mr. Becker, "How can management provide service benefits? Only the doctors can provide service benefits!" His reply was that management would be coming to the doctor to say, "Now look here! We have got to see that these men get service benefits—will you do it?" The doctors are then faced with the alternative of doing it or having competitive closed panel plans established that will do it!

### Closed Panel Threat

I have been told that shortly after Mr. Becker made this prediction to me, one of the giant corporations approached the Blue Shield Plan in its state and asked that the salary limitation be raised from \$4,500 to \$6,000. A poll was taken among physicians to establish how much the fee schedule (and therefore how much the premium rate) would have to be increased to do this. My information is that it appeared that the premium rate would have to be increased 50 per cent although the fee schedule of that Blue Shield Plan is reasonably comparable to those in Colorado and Oregon. One astute observer of the scene said, "I wish there was just *one* Kaiser Permanente Plan in this city to make these doctors think!" It appears that his wish may be fulfilled as *Medical Economics* has recently reported that the unions in that state are seriously threatening to establish closed panel plans for their members.

### How Much Prepayment?

There seems little doubt that the benefits offered under prepayment are going to be broadened. But to what extent? What per-

centage of the total family medical expenditure is it possible to prepay? The total expenditure includes not only the services of physicians and hospitals, but nursing homes, drugs, ambulance and perhaps even the services of dentists. In many parts of the country only 20 to 30 per cent of the total medical expenditure of the family is it possible to prepay. Some of our contracts in Oregon are broad enough that perhaps better than 50 per cent of the family's medical expenditure is prepaid. Probably as far as it will be possible to go in prepayment is 80 per cent. Obviously, this figure of 80 per cent would not apply to each and every case, but would be a general average. Gradually the demands of the public interacting in a competitive situation with the abilities of the insurance industry to develop techniques to safely satisfy these demands will provide an answer to this question. An answer must be provided which is satisfactory to the public, or the unmet demands will stimulate political action! However, economic pressures in a competitive situation are likely to be much more sharply felt than the windy platforms and malevolent maneuverings of politicians. And my own guess is that economic forces will solve the problem and the politicians will play but a small role — though they will, of course, claim a large one.

This competitive situation will produce answers to the other two questions: (1) What financial organizations are best fitted for selling prepaid medical care and (2) what forms of medical practice are best fitted for rendering prepaid medical care services?

The types of financial organizations now competing in selling prepaid medical care policies are:

1. the non-profit organizations (Blue Cross/Blue Shield),
2. the commercial insurance companies, and
3. the closed panel plans such as Kaiser Permanente and H.I.P.

### We Want You to Bid

Business managers of the Blue Shield Plans will testify to the intensity of the

competition. Recently in Oregon, the Carpenter's Union put out for bid a contract covering 20,000 workers. This was the largest contract yet bid on in Oregon. *There were forty-four different bids made!* The specifications for this contract were not written by the doctors, nor by the hospitals, nor by the insurance concerns, but by the union. They said, "These are the benefits we want—what is your bid?" This particular bid went to an insurance company. It was awarded within such a brief time of the opening of the bids that it seems doubtful that the bids could have been carefully analyzed before the contract was awarded. This raises some obvious questions which I do not intend to labor at this time.

### Control of Medicine

Why should the doctors care what type of financial organizations are chosen to sell these prepaid contracts? A good many doctors seem to think that it is of no moment to the profession. Indeed, I have the impression that this is the attitude of the majority of the Council on Medical Service of the A.M.A. The reasons for the concern of the physicians in this matter were succinctly set forth in a report of objectives prepared by a committee of the California Medical Association and California Physicians' Service in 1954—

"We are fully convinced that for the good of medicine and the people of our state, C.P.S. must continue to exist because (1) the prepayment method of the cost of serious illness is a modern social necessity, (2) either we lead in the development of sound health insurance or we give way to those who will and that means they will lead us, (3) he who controls the payment of medical care costs controls medicine whether that be the state, commercial insurance companies, the hospitals, industry, labor or the doctors themselves. While each of these conclusions has its own validity, the last has a conclusive and impelling significance. Assuming that C.P.S. is to be the instrument of professional choice to protect and maintain professional control of medical care payments in California, then it must be developed to the point where its influence on public opinion and medical care insurance reaches a level of acknowledged leadership. To reach this level, C.P.S. must compete successfully not only with what might be termed its tangible competitors in the insurance field, but also with a public attitude born primarily of economic pressures which suggest some pub-

lic doubt of the right and social propriety of unilateral physician control of medical care payments."

### Insurance Is a Business

And further on in the report which bears the literary hallmark of Bill Campbell, there are these two paragraphs—

"In certain areas of the State, physicians have been asked to 'accept' commercial indemnities as full payment for services rendered. It is not clear that there would be any significant difference—so far as professional control of medical care payments is concerned—if the situation were reversed, and elements of the profession requested, or demanded, that commercial carriers accept and pay indemnities equal to the fee schedule, fixed or average, of the professional element involved. A man may be billy-clubbed and robbed, or he may hand over his purse voluntarily in a bad investment. He loses control over his money either way.

"The fact is that the profession does not control the operating policies or the market actions of the commercial insurance companies, and it is not likely to do so. Insurance is a business, not a professional service, and it is the business practice of hanging an indemnity price tag on professional services which has had much to do with the growing public opinion that professional fees, if they exceed the indemnity, are excessive, and perhaps more significantly in the long run, that professional services are a market commodity. The points need not be labored."

Twenty-five years ago in Salem, physicians established their own prepaid medical care plan because of the very reasons set forth in these paragraphs. They could not control the market actions of the insurance companies who were dominant in the field and who were indulging in practices that were harmful to the patient and the profession. Those doctors were called on the carpet by a very prominent A.M.A. official and told they were engaging in an unethical procedure.

### Private Practice vs. Closed Panel Practice

The third question I posed is: "What forms of medical practice will prove best adaptable to the delivery of prepaid medical service?" Two forms now compete—private practice on the traditional fee-for-service basis, with the patient able to select his own physician, and the closed panel groups. Now this is a subject upon which it is possible to get very hot under the collar. These

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(Continued from page 696)

closed panel, prepaid groups are often hailed in the popular magazines as the answer to the problem of medical care. In these articles and in the advertising material issued by these groups, two things are claimed as a basis of superiority over the traditional methods of practice. First, these groups try to identify themselves as clinics similar to such institutions as the Mayo, Crile and Ochsner Clinics. And second, they claim that they alone give very broad comprehensive coverage.

### **Aesculapian Automats**

Now obviously the identification of these groups with the Mayos is a slick advertising trick but bears little relation to reality. Furthermore, the advantages that at times adhere to group practice are available through other forms of prepayment. The question is not therefore one between group and solo practice, but between a closed panel restricted group and the whole medical resources of the community. It must be admitted that these closed panels, the "Aesculapian automats," as Francis Hodges used to call them, do give rather comprehensive coverage provided one remains within the geographic confines of the plan. If he happens to get sick in another city, he is likely to have no coverage. But the contrast between what the broad benefits of Kaiser Permanente plans in California and what the Blue Shield/Blue Cross plans are providing in the mid-west, is rather dramatic. However, the contrast fades into insignificance on the West Coast.

### **Patient Has No Chance**

Certainly the group contract practice arrangements have some economic advantages. They can control expenditure of the prepaid patient's medical dollar—they can decide for him how to spend it. However, purely from a mechanical standpoint, the Kaiser type plans are applicable in only limited areas. They thrive only in concentrated industrial areas and chiefly in less sophisticated groups. They have moral weaknesses. Though there be dedicated and honorable and competent physicians employed in these contract groups, yet the subtle temptation to preserve the profit at the expense of the

patient will at times work to the detriment of the patient. These groups cannot possibly have all the specialties and sub-specialties represented in them. Are we to believe that the partners of the group will invariably be willing to refer the patient who could benefit from specialized knowledge not found in that group to someone outside, when the payment must be made from the group's costs? It would be idle to pretend that private practices are always conducted unselfishly. But the point is, that in these prepaid contract closed panel groups, the patient has no choice. He has paid his dues and lost all control over the expenditure of his payments. He cannot elect to select his own physician and thereby exercise some measure of control over his own funds. I submit that this is wrong. Furthermore, it has been a common practice for a union to contract with Kaiser for all of its members—the medical dollar of every employee, willy-nilly, goes to Kaiser. Those workers who wish to remain with physicians who have served them for years have to pay from their own pocket. This is wrong. It is a wrong easily avoided and sometimes, or perhaps frequently is, by permitting the employee to elect an alternative plan. We recently had an example in Oregon of what can happen when an alternative plan is offered the employee.

### **What Is Offered**

The Kaiser plan in Portland had covered the longshoremen for some five years. All of the premium dollars had been sent to Kaiser though some of the employees had continued with their private physicians so that the Kaiser partnership was getting a free ride. Oregon Physicians' Service was asked to provide an alternative contract. This alternative contract was presented to the members by mail only, through the union office. To the astonishment of the union, 20 per cent of the members signed up on this mail contact alone. Permit me to read you a list of the benefits in this contract. These benefits are available to employee members and their eligible family members with the same benefits for employee and family members. The physicians' services by participating physicians are on



a service basis. By non-participating physicians (that is those who have not signed participating agreements with Oregon Physicians' Service) they are on an indemnity basis with a \$300 surgical schedule. There are no waiting periods in the contract. Pre-existing conditions are covered immediately. The surgeon is paid in full. The assistant-at-surgery is paid and the physician-anesthetist is paid. Consultations by participating physicians are paid in full, by non-participating physicians, up to \$10.00 per case. Hospital visits are paid in full up to 120 days per case, commencing with the first visit. Home and office calls are provided up to thirty-five visits during any one certificate year, beginning with the first visit in an accident and the second visit in a sickness case. Diagnostic x-ray and laboratory examinations for illnesses and injuries commence with the first visit and here there is a little distinction between the employee and family members—there is a maximum of \$100 per certificate year for the employee and \$60 for the family member. Special nursing is provided up to fifteen days at \$25.00 per day. Prescription drugs and medicines are provided upon the basis of a \$10 deductible and 20 per cent co-insurance up to a maximum of \$100 in any certificate year and handled on a reimbursement basis. This prescription drug benefit is a highly experimental item with us as yet and we do not know whether we can make it work. The management of our plan has permission to attempt it only under very special circumstances. But the other provisions are common practice with us.

#### **Closed Panel Plans Not Cheap**

Now I think that this list of benefits that I have read you is sufficient to give the lie to anyone who says that Blue Shield cannot provide broad benefits on a private practice, fee-for-service basis. That the Kaiser type plan has no magic key that opens the door to low-cost, high-quality care is suggested by the fact that recently in San Francisco, Kaiser has had a third and rather substantial rate raise within a rather short period. I have been told that night house calls in San Francisco now cost the Kaiser subscriber \$5, that there is a

registration fee for each visit in the clinic. Kaiser, with all his millions and corporate legerdemain, has not been able to change human frailties.

#### **Broader Coverage and More Help From Physicians**

How can private practice compete in this situation? In some areas it has suffered severe inroads from these panel groups. I think it is obvious that in many areas of the country the contracts, commercial and Blue Shield, must provide much broader coverage than they do now. A small beginning has been made in this in the East and Mid-west. Secondly, it seems to me that it is essential that Blue Shield be strengthened as the economic arm of the medical profession. This implies that on the part of physicians there must be cooperation, tolerance for shortcomings, active assistance in sales and management. I suggest that it is in our interests that there be a different attitude in the A.M.A. headquarters to the Blue Shield program. The executive officer of the Council of the A.M.A. that deals with these matters is a man of ability, but recruited directly from the casualty insurance business and his thinking is highly slanted in favor of the commercial insurance companies. I think this needs to be changed. The Blue Shield plans can be greatly strengthened by placing upon their boards of trustees representatives of business, labor and the public. I have, myself, witnessed a remarkable transformation in the functioning of a board of trustees when this was done. Not only was the board of trustees changed, but the entire operation gained maturity, stature and confidence.

#### **Resolve Shortcomings**

We physicians need to continue our efforts to resolve the moral weaknesses of private practice. Much of this is done, of course, through the tissue committees, the raising of standards on hospital staffs, so that unnecessary surgery and the well publicized shortcomings of our profession are reduced to the irreducible minimum. We need in Blue Shield to develop technics for preventing the occasional greedy physician from abusing the plan. This becomes more

and more a moral problem to medicine as the benefits expand. You know, it has always been considered unethical for a physician to own a drug store. I have often wondered why it is not even more unethical for him to own a hospital—the possibilities of his doing harm to the patient's body and pocketbook are much greater. I've even half seriously wondered if it is ethical for an internist to own a laboratory — certainly there is an insidious compulsion for the doctor to keep his hospital full and the internist to keep his laboratory technician profitably occupied. We have in Oregon conducted some studies of average case costs. We know what the average costs incurred by each physician, by area, by specialties are. By application of a mathematical formula worked out by the statisticians, we are able to allow a man a generous leeway from the average before his case costs are submitted to individual analysis. It is a curious thing that in most instances the physicians whose average case costs proved to be very high on this statistical basis were just the ones that could have been predicted to be on the list. In several instances we have exercised the right of the corporation and its local supervisory committees to distribute the funds in a fair and equitable manner. We have exercised this right to withhold money from physicians whose case costs were high. In one instance this amounted to \$7,000. This man owned his own hospital.

#### **Improved Relations**

Finally, we need to tell our story better. The personal patient-physician relationship is *important*. It is a curious contradiction that as medicine has become more and more scientific, there is more and more emphasis on the functional disorders. In the diagnosis and particularly the therapy of functional disorders, we all know that success depends almost entirely upon a satisfactory physician-patient relationship. Free choice of physician, fee for service — these things grow out of the necessity of a satisfactory relationship between patient and physician. The contract physician finds it very difficult to obtain a reliably satisfactory relationship, particularly if he has to make

house calls at night for no fee. All of us who have done any lodge or railroad practice know this. We know that the closed panel groups cannot possibly avoid this problem. Yet I have the feeling that we are failing to make plain to people the essential values that we as physicians know to be embraced in the phrase—"free choice of the physician." Phrases that have precious meanings to one group can become irritants to another or be totally meaningless. I saw this amusingly illustrated some twenty years ago when I was in India at a mission hospital. An American lady of uncertain years, a very good and devout soul, I am sure, was making a trip around the world at her own expense. I think she felt the necessity of justifying this frivolous expenditure of money by doing a little evangelistic work on the side. I remember that she came through the wards of this hospital where these Indian villagers were lying and went from bed to bed, saying to each patient in English, "Are you saved! Are you saved!" Now, of course, the people didn't understand English, but even if they had, the phrase "Are you saved" would have been quite meaningless to them. But to this good soul, it embraced all of the mystery of life and the marvel of a deep religious faith. I do not know exactly how we are to tell our story better—I sometimes think that if the House of Delegates and the Board of Trustees of the A.M.A. could devote more thought to this and less to influencing legislators, that we would be ahead in the long run. It is too bad there is no William Osler among us now.

#### **Use Executive Personnel**

It occurs to me that we physicians now have a tool to use that we did not possess just a few years ago. The executive personnel employed by our Blue Shield plans is an impressive group of men. Every year these men grow in stature and gain more knowledge of our problems. Is it not possible that the medical profession is not making full use of the abilities of these men to present our story? While medicine has, for years, had able and devoted men in the offices of secretaries of the state societies, men skilled in smoothing the troubled

waters and in serving the physicians, yet this new group of men is of a different type. They are energetic, aggressive, shrewd business men. They are eager to advance the interests of the profession in every legitimate way. We can make greater use of this new instrument. We owe it to the public to see that our story is well told. It is essential to the health and well being of the American public that they gain understanding of the economic and moral problems of medicine—and it is our responsibility to see

that they gain it. The California Study Committee to which I alluded before, put it this way—

“Caught in this confusing cross-current of vigorous, undirected forces is the physician. But he cannot give up, he cannot withdraw, because he knows deep down that it is he, the physician, who must face up to the responsibility of diverting these cross-currents into one powerful stream whose single direction will be toward the greatest good of the people of America.”

## *Injury Prevention in Motorcar Crashes\**

Horace E. Campbell, M.D.

DENVER

*We, as physicians, cannot say or do too much on behalf of minimizing highway tragedies. Dr. Campbell has received national commendation for his tireless efforts in this crusade. His colleagues in the Rocky Mountain region are justly proud of him.*

INTEREST in the prevention of motorcar accidents stems largely from a desire to prevent personal injuries. We have come to feel that the way to prevent the deaths and injuries is to prevent the “accident.” It has absorbed the interest and support of safety organizations for years. If we can prevent the accident, we can prevent the injuries and the deaths and the property damage, as well.

In the Fall of 1952, Dr. William Liggett became the President of the Colorado State Medical Society. One of his first official acts was the appointment of a special committee for the study of the motorcar death and injury problem. Under the leadership of Dr. MacDonald Wood, the committee undertook the study of the facts and physiology of deceleration. The unequivocal conclusion is that the way to prevent auto-

mobile deaths and injuries is to prevent them, simply and directly, irrespective of the accident and its causation.

### **Cause of Injury and Death**

While the causes of accidents are various and numerous, there is but one cause of injury, namely, force inflicted by car structure or objects by the roadside. This is the immediate cause of injury and death in our motorcar situation. All the various psychological, emotional, and physical causes of driver failure, all the various defects of roads and of vehicles, all the vagaries of weather and lighting, come, in their ultimate fatal and disabling effects upon people, into this narrow channel of causation. Here they may be encompassed and controlled. Here is an area in space as wide as your shoulders and as long as the distance from your head to the windshield, where these lethal and disabling forces occur. Here in this same very limited space

\*Presented at the Eighteenth Midsummer Radiological Conference of the Rocky Mountain Radiological Society, August 17, 1956.

may be developed the planned counterforces than can prevent the deaths and injuries.

### **Safety Door Latches**

I was compelled to include the objects by the roadside in my definition of the cause of deaths and injuries. These can be eliminated and the field narrowed if manufacturers will provide doors which stay shut at any impact at legal speeds. It has been demonstrated that those who stay in the car are hurt much less frequently and severely; it is a myth that it is best to be "thrown clear." The 1956 models are the first to embody "safety latches" and while these are of uneven quality, this marks the first recognition of the problem by the industry.

Having achieved a door, then, which will keep the passengers from spilling out of the car to die from blows upon the curb, trees, or steel railings, all of which are harder than anything within the car, we can consider what can be done to the surfaces which the decelerating persons, both driver and passengers, strike in the course of their deceleration.

### **Force Distribution**

One of the first acquisitions of our committee was the report by Mr. Hugh De Haven, published in 1942, of his studies of the survivors of falls from high buildings. He collected twelve cases and subjected these to searching analysis. Conclusions were that, if the force is distributed widely enough over the body and if they land on structures which will yield a matter of four to eight inches, falls from as high as 150 feet may be sustained with little or no injury. (From this height a speed of about 60 m.p.h. is achieved.) Experiments by the Cornell Aeronautical Laboratories have shown that four inches of the newer plastic foams will prevent skull fractures at speeds of 70 m.p.h.

These data give us the clue as to what should be provided by way of a cushion for the decelerating motorist. The instrument panel, which frequently causes hideous injuries, should be padded with the newer plastic foams, and so constructed or mounted that a total distance of at least

four inches is provided for the deceleration of the head. The corner posts, windshield header, and car roof for three or four feet back from the header, should have at least two inches of these plastic foams. Since about one-fourth of the impacts come from the sides, the lateral walls of the passenger space at the level of the head and shoulders should have a minimum of one inch of these materials as padding.

### **Steering Column**

Since the driver is frequently alone and thus constitutes the most frequent occupant of the car, he deserves special consideration. Often the driver alone survives and all the rest in the car are killed. This is because the steering wheel and column absorb enough energy that the blows to the driver are not fatal. In cars built in the last six years, however, the driver does not fare so well, because the steering column has been made more rakishly horizontal, and in these cars the column does not bend as it formerly did, but crushes or penetrates the chest. One important manufacturer has recognized this danger and alone in all the industry has presented an energy absorbing steering wheel.

The windshield remains the structure with the largest area and is therefore the structure most frequently hit, and as yet no way has been found to make it energy absorbing. Its injuries are particularly disfiguring, and not infrequently fatal. The "pop-out" windshield is only a partial solution. The most logical procedure is to prevent contact with any of these forward structures.

### **Seat Belts**

The Indiana State Police has led the nation in its study of the motorcar crash, and their conclusion is, "The study, as indicated by the following facts, identifies the basic problem of saving lives in highway collisions as **HOLDING YOUR SEAT IN THE CRASH.**"

Everything points to the soundness of the Indiana State Police conclusion. *You must stay in your seat in a crash*, if you care to survive. The only way to do this is to employ some sort of mechanical barrier to the inexorable forward motion that

is the prelude to the blows which kill and maim us. At the moment, a two-inch strap of heavy cotton or nylon, equipped with a buckle that can take the impact, and fastened to the floor of the car is the lightest, least obtrusive barrier that has been produced.

#### **Failure to Define Cause**

After we became aware of the basic physics and physiology in highway crash problems, the most amazing thing to us was the ignoring of these factors and these findings by the great safety organizations. These groups, the National Safety Council, the President's Committee for Traffic Safety, the Automotive Safety Foundation, and the various State Highway Safety Organizations attest by their very size and intricate organization to the magnitude of the traffic problem, and yet these organizations are still dedicated to the dream of accident prevention. The causes of "accidents" are variable; alcohol in about 50 per cent of fatal accidents, carelessness, physical defects, defective cars. We must redouble our efforts, if anything, to prevent accidents. It seems to us, however, that the persistence of something over 35,000 motorcar deaths, 100,000 permanent disabilities, and one and a quarter million injuries in this country annually must mean that we have failed up to now to put our finger on the definitive cause.

I submit that we will solve our motorcar accident problem if and when and in the same way that we solve our problems of alcohol, mental health, domestic relations, juvenile delinquency and criminality. To think that we can solve our motorcar accident problem separately from these other problems is unrealistic; and the limited success of the safety organizations to solve it is proof of my contention.

#### **Safety Council**

This does not imply that the unstable segment of our population is responsible for the bulk of motorcar accidents. It is true that these individuals account for more than their share, but they are not the main problem. A release by the Colorado Highway Safety Council reports 749 traffic fa-

talities during the two years 1954-55 in which the driver of each car was a resident of the State of Colorado. Seventy-nine per cent had no previous reportable collision and 59 per cent had no previous traffic violation. Educators and physicians are aware that there are thousands of people driving automobiles who are congenitally incapable of developing skills and judgments equal to the needs of motorcar operation. We see no indication that legislation to keep these people from driving cars is possible in the next fifteen or twenty years.

Accident prevention is not a hopeful mode for the prevention of traffic deaths and injuries. Vast campaigns which seek by slogans to reform the human race are useful, and I do not imply that they should be discontinued. But they are of limited usefulness; they can in no way even approach the solution that can be achieved by recognizing the definitive cause of these deaths and injuries. The President's Committee for Traffic Safety has been in operation now for just a decade. The actual increase in the numbers killed and injured during this time indicates that a re-orientation of thinking is in order.

#### **Problems of Injury Prevention**

Our motorcar deaths will continue to number between thirty-five and forty thousand a year, until these organizations bring their vast influence to bear upon the injury prevention problem, as distinct from the accident prevention problem, with resultant sweeping and radical changes in the interior design of the motorcar. The surfaces and structures which now inflict the appalling number of fatal and disabling blows can be so modified that these blows result in mere annoyance and discomfort. Then why bother with the troublesome seat belt or other personnel stabilizing devices? First of all there are the sixty million cars now on the road. There is still the unsolved windshield. The elastic energy-absorbing windshield is yet to come. And I would rather take a 15 G blow by a seat belt than a 15 G blow on my face or head even with the best of padding, particularly when wearing glasses.



### **Car Interior Design**

This brings us to a consideration of the fact that a seat belt still allows one to strike the instrument panel, although the windshield can not be contacted under usual circumstances. Therefore, in cars with old-fashioned non-padded instrument panels, the shoulder strap is a necessary addition. In cars of the future, the padding on the instrument panel should be much deeper than is offered this year; and the solution that appeals to me is to abolish the instrument panel altogether on the right two-thirds of the car, thus providing a completely unoccupied space into which the belted motorist can swing. This will make the right front seat almost as safe as the rear seat which, with a seat belt, is by all odds the safest place in the car.

### **Front Seat Hazardous**

A dangerous custom has arisen in which the extra passengers in our motorcar crowd in the front seat, before anyone occupies the back seat. We should adopt the custom that only the driver occupy the front seat, the right front seat remaining empty until three people have filled the rear seat. This may seem unfriendly from a conversational point of view until one considers one of the major findings of the studies conducted by Cornell University. "The three major seating areas of the car produce significantly different frequencies of head injuries in this descending sequence: front seat (1), driver (2), rear seat (3)." If you really cherish your wife, you will help introduce the custom that passengers fill the rear seat before they occupy the most dangerous seat in the car. If you want to dispose of her, the technic is clear.

I am frequently asked whether belts need be installed in the rear seat. One other of the major findings from Cornell is that rear seat passengers in four-door cars are significantly more frequently killed than those in the rear seat of two-door cars. This is because if the rear door pops open, the rear seat passenger frequently is hurled from the car. With a belt, the rear seat passenger is in the safest place in the car. He has no windshield, no instrument panel, no steering wheel to inflict injuries. If the

manufacturers will adequately pad all the lateral surfaces in the rear seat compartment, and if the motoring public can be induced to occupy the rear seat by preference, then thousands of lives may be saved.

### **Energy Absorbing Front End**

If we could do so much for the passengers with these specifically designed materials and structures, why not do the same for the car itself? Does every little crack-up necessarily have to result in a \$300 grille and fender job? The front end and sides of cars are designed, subconsciously possibly, to provide as much income as possible in the way of replacement parts and services. At the Atlantic City meeting of the American College of Surgeons in November, 1954, I proposed that a standard, easily replaceable, 30-inch, energy absorbing nose be provided by the manufacturers for our automobiles. The loud squawk emitted by a certain segment of the industry indicated to me that a sensitive area had been impinged upon. "Why," they said, "an energy absorbing nose to do any good would have to be ten feet long." Professor E. F. Bruhn, of the School of Aeronautics of Purdue University, has given this matter a great deal of thought during the last several years, having come to the motorcar aspects via aeronautics; indicating once again that the aviation industry has been much more alert and progressive in this whole field of crash and deceleration control than has the motorcar industry. He wrote me as follows: "I have advocated that real auto crash safety must involve passenger restraining devices and crash force control. Besides saving lives, I have also argued that our present car is quite inefficient in absorbing crash energy and too expensive, too, since a good crash causes expensive car damage. . . . Based on results of our aircraft research, I am confident that a practical crash unit can be designed (either structural or pneumatic) to occupy the space between the front edge of the bumper and the radiator. . . . The crush resistance of the present car is very inefficient since the first two feet of the car structure absorbs very little crash energy. . . . A crash unit

that will look like a car front end, act also as a normal bumper, can be developed to give fairly uniform resistance while being crushed and thus lower the car deceleration factors. . . . By redesigning the car carry-through structure just aft of the crash unit, I see no reason why head-on crashes should cause expensive car damage."

#### Conclusion

In conclusion, while it is highly desirable from every standpoint to prevent accidents, we must enlarge and define our thinking to embrace the idea of injury prevention as a field distinct from accident prevention. The forces that are causing our deaths and injuries are greater than many of us have suspected. But, they can be controlled; and

are related basically to continued motion of personnel, when vehicular deviations occur. Passenger stabilizing devices will control this motion. Energy-absorbing surfaces and structures in passenger compartments will minimize the effects of this motion when passenger stabilizing devices fail, are inadequate or are ignored. These same principles can be applied to the motorcar itself, as a moving body, and have sound engineering support. Physicians, who know more about the effects of uncontrolled deceleration upon human structure than any other group, should apply this knowledge to their own automobiles, and should be the most active, both as individuals and as organized groups, in solving this problem.

## *The Shoulder-Arm Syndrome— Causation, Diagnosis And Treatment\**

Ralph K. Chormley, M.D.  
ROCHESTER, MINNESOTA

*Here is a review of the shoulder-arm syndrome with excellent correlation of pathology and physiology to symptoms and to the rationale of treatment.*

THE complexity of the problem of the shoulder-arm syndrome can be appreciated best by means of a brief review of the anatomic supporting structure of the upper extremity. The brachial plexus, the shoulder joint (once a partially weight-bearing joint but, through processes of evolution, now a nonweight-bearing joint) and the arm are all suspended from the cervical part of the spinal column by muscular and

ligamentous structures. The only bony contact is at the sternoclavicular joint, the clavicle acting as a boom to which many of the other structures are attached and constituting a prop to keep the shoulder in a position away from the wall of the chest.

The relationship of the cervical part of the spinal cord and the spinal nerve roots to the spinal canal and intervertebral foramina, the scalenus muscle and other structures of the neck is important when attempts are made to analyze cases of the shoulder-arm syndrome. It must be remembered that the weight of the arm and shoulder is carried by the soft-tissue structures

\*Read at the meeting of the Utah State Medical Association, Salt Lake City, Utah, September 6 to 8, 1956. From the Section of Orthopedic Surgery, Mayo Clinic and Mayo Foundation. The Mayo Foundation, Rochester, Minnesota, is a part of the Graduate School of the University of Minnesota.

attached to the cervical and upper thoracic parts of the spinal column. According to Sir Arthur Keith, "In these features man does not differ from the other members of the orthograde group of primates. He differs from them in this circumstance that in the climbing, moving arboreal anthropoid the arms and shoulders have to sustain or help to sustain the weight of the trunk, whereas in man the trunk has to sustain the weight of the shoulder and arms."

It should be pointed out, therefore, that the lesions most likely to cause pain in the shoulder and often in the arm, too, are not lesions of weight-bearing surfaces of the shoulder part, but of the soft-tissue structures, such as the musculotendinous cuff of the shoulder joint.

The shoulder-arm syndrome seems to me a difficult term to define; yet there are, of course, many cases in which both shoulder and arm are involved in the painful syndrome. It is our duty to analyze the situation, to attempt to find the causative factors and to treat them. In this respect a brief outline may be of some help.

I. Lesions related to the cervical part of the spinal column:

A. Osteoarthritis with encroachment on the foramina of exit of the cervical nerve roots.

B. Protruded intervertebral disks in the cervical area.

C. Subluxations of vertebrae.

D. Fractures of vertebrae.

E. Tumors of vertebrae.

F. Infections involving vertebrae.

II. Lesions related to soft-tissue structures in the cervical region of the spinal column:

A. Fibrositis and myositis.

B. Scalenus anticus syndrome.

C. Thoracic outlet syndrome.

1. Cervical rib syndrome.

2. Subcoracoid pectoralis minor syndrome.

3. Costoclavicular syndrome.

4. First-rib syndrome.

5. Costoscapular syndrome.

D. Lesions about the sternoclavicular joint.

III. Lesions related to the shoulder:

A. Tenosynovitis of the long head of the biceps tendon.

B. Capsulitis, periarthrititis, "frozen shoulder."

C. Cuff tears (minor-major).

D. Calcium deposits in cuff and bursa.

E. Subdeltoid bursitis.

1. Post-traumatic.

2. Calcified.

3. Infections, such as tuberculosis and the like.

F. Ruptures of the long head of the biceps (minor-major).

G. Recurrent dislocations.

Various other lesions less commonly noted must be borne in mind in a consideration of pain in the shoulder and arm, such as tumors of bone and soft tissues. Infections, tuberculous and pyogenic, and many others may be seen.

### Lesions of Cervical Part of Spinal Column and Brachial Plexus

We have enumerated some of the lesions of the cervical part of the spinal column and brachial plexus which may cause symptoms.

**Osteoarthritis:** Osteoarthritis or hypertrophic changes involving the cervical part of the spinal column occur more often, and are an equally important cause of pain in the neck and shoulder and arm. It is in these cases that some bony encroachment on the foramen of exit of the nerve root may be found. Pain usually is exaggerated by activity and is relieved by rest. Definite changes are seen in the roentgenogram, with thinning of the spaces between the intervertebral disks and hypertrophic changes around vertebral margins, and particularly around the borders of the facets. Here, again, conservative treatment is the measure of choice. Traction, with use of heat and massage and gentle manipulations, usually will bring much relief. Fixation maintained by a Thomas collar or other type of splint may be necessary in some cases. Decompression of the nerve root by enlargement of the foramen has

been advocated, but in our experience has not been satisfactory.

**Protruded Intervertebral Disk:** During the past decade attention has been more and more directed toward protruded cervical intervertebral disks as a cause of pain in the neck and arm. Such protrusions unquestionably are among the more important lesions causing such pain, but diagnosis must be made on the basis of objective findings, and often it can be made only with the aid of a myelogram. In many cases the diagnosis may be suspected, and relief may follow conservative treatment involving the use of head traction, massage and gentle manipulations of the cervical part of the spinal column. Yet such relief may not be sustained, and it may be necessary to perform cervical laminectomy, with removal of the protruded disk, although it is a generally accepted estimate that in some 80 per cent of cases, an apparent protrusion of a cervical disk can be relieved by conservative measures.

**Subluxations of Vertebrae:** Subluxations of vertebrae, either spontaneous or post-traumatic, often are causes of pain in the neck and arm. When subluxation is a complication of fracture, much more severe signs generally are noted. In all cases in which subluxation cannot be corrected by conservative measures and reduction cannot be maintained, fusion of the involved vertebrae is indicated. Fusion should be performed with or without exploration of the canal and nerve roots, the latter action depending on the presence of signs indicating continued pressure on these roots.

**Tumors of the Vertebrae:** Tumors of the cervical vertebrae are seen from time to time as causes of persistent pain in the neck and arm. Time does not permit discussion of all tumors which it would be possible to consider, either benign or malignant. It seems, however, that when a tumor is present an accurate diagnosis is so important to the planning of treatment that, if doubt as to the type of tumor exists, biopsy or surgical exploration is indicated to establish the diagnosis. Treatment depends upon the type of tumor found.

**Infections of the Vertebrae:** Infections of

the vertebrae and intervertebral disks were much more commonly seen before the days of antibiotic agents, but must still be borne in mind as possible causes of this syndrome.

#### **Lesions of Soft Tissues in Cervical Area**

In a discussion of lesions of the soft tissues of the region of the neck as causes of pain in the shoulder and arm a much more complex picture must be visualized.

**Fibrositis and Myositis:** Probably the most common cause which may be attributed to lesions of soft tissues in this area is fibrositis or myositis. This condition, at best rather vaguely understood as to causation, often involves both the muscular and ligamentous structures or the fascial structures. It may be the cause of considerable pain localized in the region of the neck and shoulder, particularly over the trapezius muscle. At times it is found that pain extending to the arm accompanies the condition. Fibrositis or myositis occasionally is the cause of acute wryneck. It is usually characterized by morning stiffness and pain and stiffness after sitting or resting, relieved to some extent or completely by resumption of activity.

**Scalenus Anticus Syndrome:** The scalenus anticus syndrome frequently is cited as a cause of pain in the shoulder and arm. This condition presumably is caused by compression of the subclavian artery and a portion of the brachial plexus brought about by spasm of the scalenus anticus muscle. Much was heard about this syndrome ten years ago, but now it seems to be less frequently regarded as a causative factor in pain of the shoulder and arm.

**Thoracic Outlet Syndrome:** The syndrome of cervical rib has long been recognized as a cause of pain in the shoulder and arm, at times severe enough to cause great distress and even circulatory and neurologic changes in the fingers. However, it should not be concluded, from the roentgenologic demonstration of cervical ribs, that they are the cause of such pain. According to Corbin, "In more than 50 per cent no symptoms are produced. . . . Whether or not such a process will cause irritation of the lower roots of the brachial plexus will depend on several factors,

among which are the presence of a post fixed plexus, on the position and configuration of the scalenus anterior muscle, and on the postural adjustment of the individual." It was Adson and Coffey who first called attention to the fact that relief of symptoms attributed to a cervical rib could be accomplished by section of the scalenus anterior muscle.

Other conditions now grouped in the thoracic outlet syndrome have been described from time to time. They are subcoracoid pectoralis minor syndrome, costoclavicular syndrome, first-rib syndrome and costoscapular syndrome. The relative infrequency of each of these and lack of time do not permit an elaboration of their diagnostic points here. It is of interest to note that most neurologists now make a diagnosis of "thoracic outlet syndrome," rather than to try to establish a diagnosis of one of the above-named conditions.

**Lesions of the Sternoclavicular Joint:** Lesions about the sternoclavicular joint are of less importance from the standpoint of severity. In many cases this joint is found to be enlarged on one side only, when compared to the other side. Usually, mild pain accompanies the enlargement of the joint. More often, it is the enlargement of the joint that disturbs the patient. As a rule, such conditions are localized changes in the nature of traumatic arthritis. If the presence of a neoplasm of the clavicle or sternum can be ruled out, the patient can be reassured, and the condition will rarely cause serious symptoms. If doubt exists as to the presence of a neoplasm, biopsy should be performed to establish a diagnosis definitely.

#### **Lesions Related to the Shoulder**

Anyone discussing the problem of lesions of the shoulder joint and the painful shoulder should refer to Codman and his book "The Shoulder" for a basic study and guide to the problem. His recognition of lesions of the musculotendinous cuff and particularly tears of the supraspinatus tendon opened the way to much of our modern knowledge of the shoulder. Before Codman's time the cause of most painful shoulders was diagnosed as periarthritis or bur-

sitis without much factual evidence of involvement of the structures. Since Codman's time more attention has been paid to the musculotendinous cuff and to the tendon of the long head of the biceps.

A quotation from Codman seems worthwhile at this point: "When I first began my work on 'stiff and painful shoulders' the usual diagnosis assigned to such cases was 'periarthritis.' Following my articles drawing attention to the anatomic characteristics of the bursa and the importance of its recognition, the term 'subdeltoid bursitis' replaced that of 'periarthritis' and since my second paper the adjective 'sub-acromial' has largely replaced that of 'subdeltoid.' The present status is, that the bursitis has been accentuated rather than the tendinitis. I now feel that in most cases the bursa, like the peritoneum, is only secondarily involved, and that the commonest causes are: (1) in traumatic cases, a rupture of the fibers of the supraspinatus tendon; and (2) in spontaneous cases, a necrosis in this tendon, and in these cases possibly an initial severe trauma to the tendon."

To quote Codman further, "I may summarize by saying that owing to the peculiar mechanics of the shoulder, the avascular and inert supraspinatus tendon is the most vulnerable part of this joint, and that inflammation in it is apt to be painless until the adjacent subacromial bursa is involved, which, being abundantly supplied with vessels and nerves, produces the symptoms of which the individual complains."

One of the most complete works on shoulder-joint pathologic processes and their relationship to symptoms is that of Olsson, who studied 106 shoulder joints macroscopically and microscopically. The clinical history was known in each case. A macroscopically visible rupture of the cuff or of its insertion was present in sixty of the 106 joints. However, only twelve of the sixty patients with rupture of the cuff complained of shoulder pain.

DePalma, Callery and Bennett examined 108 shoulders at necropsy and found that 24 per cent exhibited tears of the supraspinatus tendon and 41 per cent contained



tears of the subscapularis tendon. DePalma, White and Callery also examined ninety-six shoulders at necropsy from fifty persons who had been unaware of any disability of the shoulder and whose clinical examinations had been negative in this respect. Tears of the subscapularis tendon were found in 20.8 per cent of cases, and tears of the supraspinatus and infraspinatus tendons were found in 35 per cent of cases. These authors concluded that "Good function is compatible with massive avulsion of the cuff provided the balance between the deltoid muscle and the remaining intact portion of the rotator cuff is not seriously impaired."

Tenosynovitis of the Long Head of the Biceps Tendon: Codman's description of lesions of the supraspinatus tendon and musculotendinous cuff now has become widely accepted, and his ideas are constantly being put to use. The importance of involvement of the tendon of the long head of the biceps in the syndrome of shoulder pain was minimized by Codman who wrote, "Personally, I believe that the sheath of the biceps tendon is less apt to be involved than are the other structures. I have never proved its involvement in a single case. I think that the substance of the tendon of the supraspinatus is the most often involved."

Various authors, particularly Pasteur, Meyer, Lippmann, Hitchcock and Bechtol, and DePalma and Callery have pointed out the importance of tenosynovitis and erosion of the tendon of the long head of the biceps as factors in producing shoulder pain. My own experience in exploring painful shoulders has led me to realize the importance of this structure as a cause of painful shoulder. This type of tenosynovitis and erosion often may be the earliest lesion and a forerunner of a more extensive process which spreads to other portions of the capsule and leads to adhesive capsulitis.

Olsson found changes in the tendon of the long head of the biceps in increasing frequency with advancing age. The frequency of occurrence varied from 30 per cent among persons 40 to 50 years old to more than 80 per cent among persons 80

to 90 years old. He also noted that roughness of structures underlying the tendon and dislocation of the tendon caused by abnormal sloping of the wall of the bicipital groove added to the damage to this tendon.

DePalma and Callery cited the findings in seventy-eight cases of bicipital tenosynovitis, and noted that the alterations found "left no doubt that the lesion is the most common cause of pain in the shoulder joint." Hitchcock and Bechtol went further in analyzing the lesion to point to the peculiar anatomic structure of the long head of the biceps tendon and its relationship to the shoulder joint. Passing along a groove and crossing the head of the humerus, the long head of the biceps tendon is subject to many strains, both longitudinal and torsional. With variations in the formation of the groove and its relationship to the head of the humerus, by abnormal strains executed during many of the extremes of motion, it is easy to understand why pathologic changes take place in this tendon and subsequently in the sheath of the tendon of the long head of the biceps.

Capsulitis and Periarthritis: Neviaser, in "a study of the pathologic findings in periarthritis of the shoulder," found "adhesive capsulitis" in ten cases. In all he found adhesive capsulitis, but there is no indication from his description of his operative procedures that he explored the sheath of the tendon of the long head of the biceps.

Tears of the Musculotendinous Cuff and Calcification: From the mass of evidence available, it may be concluded that one or two main pathologic processes usually are present in cases of so-called periarthritis. First are lesions of the musculotendinous cuff, often degenerative, with or without the development of calcification, and secondary to this, subdeltoid bursitis. There may be a rupture of the musculotendinous cuff, either spontaneous or post-traumatic. Second are lesions of the long head of the biceps tendon, with degenerative changes incited by some wear-and-tear process followed by tenosynovitis and inflammation with adhesions, and resulting in a painful shoulder with limited movement.

It should be borne in mind at this point

that most painful lesions involving the shoulder joint are not lesions of weight-bearing surfaces of the joint, but are lesions of ligamentous and tendinous structures binding the joint together. There are occasional cases in which hypertrophic or osteoarthritic changes may be seen, usually as a late result of injury. But conditions of that type are much less commonly seen than are those of ligamentous structures which we have here described. Lesions of the ligamentous structures may involve most of the capsule, and as a result the adhesive process leads to a "frozen shoulder."

**Subdeltoid Bursitis:** Subdeltoid bursitis usually is seen as a part of this process, with or without calcification within the bursa due to degenerative changes in the cuff. Other types of subdeltoid bursitis may develop as a result of infection or disease, but these are much less common.

**Rupture of the Tendon of the Long Head of the Biceps:** Rupture of the tendon of the long head of the biceps has been referred to above. In my experience, the condition generally is a result of rupture of a badly worn tendon after a relatively minor strain. The lesion is only moderately painful and disabling. The characteristic shortening and bunching of the belly of the biceps on flexion of the elbow are diagnostic of the lesion. Repair is indicated when any disability is present, especially in younger persons. As a rule, repair is accomplished by fixing what is left of the tendon to the bicipital groove or transplanting it to the tendon of the short head of the biceps or to the coracoid process itself.

**Recurrent Dislocations of the Shoulder:** Recurrent dislocations of the shoulder, although they may be painful at the time of dislocation, generally are not painful except at that time, and hardly need be considered here.

#### **Differential Diagnosis of Pain in the Shoulder and Arm**

The differential diagnosis of these conditions at times is difficult, particularly when the condition has been long standing, and has led to fixation of the shoulder, with

extension of pain to the forearm and hand. In such cases it may be impossible to distinguish between the primary condition and the secondary complications. In my opinion, one must first exclude any possible lesion, such as a protruded cervical intervertebral disk or tumor of the spinal cord, which might be the inciting factor. If such lesions can be excluded, the problem of the shoulder itself must be considered. As a rule, if various organic causes of shoulder pain and disability are considered, a definite diagnosis may be reached.

**Shoulder Lesions: Acute Cuff Tears.** — These may or may not be the result of an injury. If they result from an injury, the trauma usually is caused by sudden application of adduction force, which may tear the supraspinatus attachment. Falls on the shoulders, with sudden adduction of the arm, may produce the same mechanical force and result in tear in the cuff. The patient usually then notes difficulty in initiating abduction of the shoulder. The more extensive the cuff tear, the more difficulty the victim will experience in the initiation of abduction. An area of tenderness will be found at the site of the tear, usually just above the greater tuberosity of the humerus. There will be spasm and limitation of motion of the shoulder. Roentgenograms generally show no change, although a flake of bone occasionally will be detached from the greater tuberosity.

**Subdeltoid Bursitis:** Subdeltoid bursitis is characterized by pain localized in the region of the bursa. The condition may be severe and acutely painful, with fixation of the shoulder as a result of muscle spasm. Tenderness is found at the site of the bursa. When the condition is more acute and severe, a sense of fluctuation can be detected in the area of the bursa. Roentgenograms may show a calcified mass in the area of the bursa. Sometimes this mass is large enough to fill the bursa.

**Tenosynovitis of the Long Head of the Biceps:** This condition is characterized by pain on rotation of the shoulder, especially internal rotation. When the condition is more advanced, secondary spasm is set up and limitation of all movements of the

joint is noted. The one most important physical finding is tenderness along the tendon of the long head of the biceps in the bicipital groove. There may be pain on abduction and forward flexion, or on movement of the tendon within its sheath.

**Extension and Localization of Pain:** Any of the above conditions involving the shoulder joint may be accompanied by extension of pain as far as the elbow. In my experience, one rarely encounters patients with pain extending to the forearm or hand whose lesion is in the glenohumeral joint.

Extension of pain to the forearm and hand, however, is seen in instances in which the brachial plexus or cervical nerve roots generally are involved by a lesion. The differential diagnosis between lesions in the cervical area of the spinal column and lesions of the shoulder joint is made mainly on the basis of localizing signs of involvement of the shoulder joint. It must be borne in mind that in some cases of long-standing brachial pain caused by lesions of the cervical part of the spinal column the shoulder may become involved secondarily, from either disuse or "periarthritis." In most cases, however, the shoulder joint is free of pain and passive movements of that joint are not limited.

Sharp localization of the pain to an area of the hand which corresponds to a cervical or upper thoracic dermatome helps to localize the level of the lesion causing symptoms. In cases of protruded intervertebral disk in the cervical area, hyperextension of the neck toward the side involved may reduplicate the pain pattern in the arm. Deep pressure over the laminae at the level and on the side of the lesion may also cause the pain pattern to be reduplicated. In cases of cervical rib with partial occlusion of the subclavian artery and possible pressure on fibers of the brachial plexus, there may be circulatory changes in the fingers, and some degree of atrophy of muscles of the hand. The scalenus anticus syndrome is supposed to be demonstrated by the scalenus maneuver. This is essentially the same as the Adson maneuver, in which the patient is asked to extend the neck

and to rotate the chin to the side affected. Sufficient pressure can be exerted on the subclavian artery to diminish or obliterate the radial pulse when the patient takes a deep inspiration.

### **Treatment**

One's ingenuity may be taxed in finding means to relieve patients suffering from pain in the shoulder or arm. When acute or subacute pain in the shoulder is caused by tenosynovitis of the long head of the biceps, our experience has been that in many cases partial or complete relief can be obtained by the use of small doses of deep roentgen rays or by the injection of hydrocortone into the tendon sheath. When relief of pain has been achieved, motion should be encouraged, for motion will prevent the formation of adhesions and "freezing" of the shoulder.

Acute tears of the musculotendinous cuff should be treated either by splinting in an abducted position or by open repair of the torn cuff. When the tear is minor, splinting probably will be adequate. When a more extensive tear exists, open repair will produce the best result.

When mild pain is present and a calcified plaque is noted, the injection of a 1 per cent solution of procaine hydrochloride or of hydrocortone into the plaque may stimulate absorption of the plaque. In instances where pain persists, excision of the plaque may be indicated. When an extensive shadow of calcification indicates a calcified bursa, injection therapy may promote healing within a few days. If this fails, surgical exploration and débridement of the bursa may be indicated. Such procedures must be followed by splinting for a few days, and then by a program of exercises to re-establish muscular tone and stability.

"Frozen shoulder" usually causes partial limitation of scapulohumeral movements as a result of adhesions between the cuff and head of the humerus. When the condition is milder, limitation of motion can be relieved by active exercises and gentle stretching. When limitation of movement is severe, manipulation with the patient

anesthetized is helpful. Manipulation should be undertaken only after careful investigation, and it should be avoided when a patient has osteoporosis, because of the danger of fracture. Manipulation should be done carefully, with the scapula held firmly and the humerus grasped as close to the head of that structure as possible. Gentle, steady pressure is exerted until adhesions are felt to break, after which the patient usually can attain a full range of movement. The patient's arm should be held in suspension traction, an ice cap should be applied to the shoulder, a roentgenogram made, and as soon as the patient awakens the shoulder should be put through a full range of motion. The patient should be encouraged to move the shoulder to prevent re-formation of the adhesions. Physiotherapy, particularly active exercises to promote recovery of motion, should be carried on until this full range of movement has become established. Until motion has been completely recovered, patients generally continue to have pain.

Lewis and I recently reviewed the benefits of manipulation obtained for 211 patients who had "frozen shoulders." We found that in a group of 195 patients 56 per cent were markedly improved, obtaining normal motion within one week to one month, whereas 10 per cent recovered motion within one to two months, and 24 per cent recovered motion after more than two months.

Chronic tenosynovitis of the long head of the biceps tendon and rupture of the long head may require surgical treatment. When conservative measures fail, open exploration and tenodesis of the tendon in the bicipital groove may be indicated. Rupture of the long head of the biceps as a rule requires operative treatment. In my experience, the tendon usually is found to be so frayed out that satisfactory repair cannot be accomplished, and what is left of the tendon generally has to be sewed to the short head of the biceps or brachioradialis muscle to restore partial function of the muscle.

Myositis or fibrositis, with or without acute spasm and wryneck, is best treated by light doses of deep roentgen rays. The

area of the trapezius muscle is often most affected by this condition. Baking and massage carefully administered may help. Aspirin often relieves pain. Roentgen therapy generally is given as follows:

The patient lies prone, and radiation is administered through a field large enough to include that portion of the trapezius muscle which is painful, generally through a cone 20 by 20 cm. If the condition involves the muscles of the posterior aspect of the neck also, these muscles are irradiated separately through an additional smaller field.

When the condition is acute a dose of about 100 r. is given. This is repeated every two days, two or three times. If the lesion is "chronic," the dose usually is of the order of 150 r. every week, which is repeated two or three times. When tender nodules are present, they are irradiated separately. In this instance the dose is from 150 to 250 r.

If relief is to be achieved, it generally will have begun to appear at the end of the second treatment. Indiscriminate repetition of roentgen therapy in the face of failure, but with the hope of future benefit, is to be condemned. If treatment is administered by an expert roentgenotherapist with the collaboration of the orthopedic surgeon, the method described above often will be beneficial and always is without risk.

**Scalenus Anticus Syndrome:** In my opinion fewer operations are being done for this condition than were done ten or fifteen years ago. When a clear-cut picture of this condition is present, with or without the demonstrable presence of a cervical rib, relief may be spectacular. However, a conservative approach, with local application of heat and use of massage, stellate ganglion block and rest, often will relieve the pain and improve circulation to the arm and hand.

Treatment of the so-called thoracic-outlet syndrome may be difficult until it can be clearly demonstrated which one of the several components of this syndrome is present and causing symptoms.

When it is demonstrated that symptoms are caused by compression arising from

(Continued on page 716)



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1. Boger, W. P.; Strickland, C. S. and Gylfe, J. M.: *Antibiot. Med. & Clin. Ther.* 3:378 (Nov.) 1956.

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(Continued from page 713)

an abnormal first rib, this structure may be partially removed. In other instances surgical procedures may be used, but often a program of heat, massage and traction, with or without the use of a brace or collar, will give satisfactory relief.

In about 80 per cent of cases, protruded intervertebral disks in the cervical region can be relieved by conservative measures, such as traction, massage and gentle manipulations of the neck. When relief is not

forthcoming after a trial of such treatment, surgical intervention should be considered.

#### Summary

The important points in all the conditions described herein seem to be early and accurate diagnosis, institution of proper treatment and encouragement of the active use of the extremity before fixation and stiffness develop. The conditions in question have been outlined, and differential diagnosis and treatment have been presented.

## *U. D. Among Ute Indians Of the Southwest*

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*A detailed study of the V.D. problem among the Ute Indians with a thought-provoking discussion of the epidemiology and social factors involved.*

ON SEPTEMBER 30, 1879, a band of White River Utes numbering about seventy-five braves revolted against the Indian Agency near Meeker, Colorado, and massacred the agency personnel. Troops of the U. S. Fifth Cavalry dispatched to the rescue fell into an ambush at Red Canyon and when the battle had ended, fifty-six soldiers had fallen. The Utes, armed with little more than bows and arrows, listed six casualties. Chief Ouray, hearing of the uprising while on a hunting trip, hurried to the scene and humbly apologized for the action of the few renegades.

The Utes, although long considered the most ferocious and formidable Indians of the Rocky Mountains, saw no further dispute with the government. During the following few years and without further bloodshed, 5,000 to 6,000 Utes were led by their chief, Ouray, to the San Juan Basin of Colorado and New Mexico and the Uin-

tah-Ouray reservation in Utah where they became wards of the government.

#### Rehabilitation Program

Years passed and the tribes, poor and disillusioned, dwindled to less than a thousand by the twenties. The thirties, however, saw some recognition by the Indian Service and by 1952 when natural gas and other mineral resources had been discovered on the reservation, the Utes began to find hope for existence. In 1954, some 1,200 Utes, led by youthful and progressive tribal councils and armed with \$32,000,000.00, formulated a complete and idealistic rehabilitation program. Soon, cars replaced horses and frame houses outdated hogans and brush huts. School children were amalgamated with non-Indian children in public schools and non-Indian merchants looked upon the Indians as excellent customers. The transitional period was not without its problems, however. Alcoholism, promiscuity, and high mortality rates on the highways increased. Because

\*Director, San Juan Basin Health Unit.

of the auto, more spending money, freer congress with non-Indians, and a certain degree of social disintegration, venereal disease had become a major health problem.

#### Increased VD Rate

The San Juan Basin Health Unit, the district health department for four counties in Southwestern Colorado, had observed the growing problem of VD among the Indians for several years. The Department of the Interior in 1950 contracted with the Basin Health Unit for the services of a public health nurse. One nurse was hardly adequate to cope with the health needs of growing restless peoples determined to rehabilitate themselves. It was not until the Public Health Service entered the picture in July, 1955, that long steps were taken to improve the health of the Utes.

In August, 1955, the Public Health Service awarded the San Juan Basin Health Unit a sum of \$2,000.00 to undertake a multiphasic health survey among the 1,200 Utes within the area. This survey carried out in August-September of 1955 was unique, as it is recorded as one of the first modern and comprehensive multiphasic health surveys among Indian tribes in America. Furthermore, as the Ute reservation extends into Utah and New Mexico, state borders were erased through the co-operation of the various states and the Public Health Service. Twenty physicians, nurses, laboratory technicians, and clerks from the three states cooperated under the San Juan Basin Health Unit to make the survey complete and eminently successful. The results of the survey and of the follow-up program are most interesting and will be discussed in a later paper. This paper will provide the findings on the venereal disease problem of the Ute Indians.

#### The Survey

Procedures carried out for the screening of VD included physical examinations, serologic tests (VDRL Slide Test, Quantitative, and the Kolmer Cardioliipin test), urine sedimentation tests for gonorrhea, smears and cultures for gonorrhea, and dark-field examinations for syphilis. Forty-nine Treponema Immobilization Tests (TPI) were also included. No Indians under six years were

examined. The schools provided us with Indians 6-12 years on which serologic tests, urinalyses, and physical examinations were performed only. Indians over the age of 12 were asked to attend the clinics for serologic tests (STS), complete lab and physical examinations, and urine sedimentation tests. A study of non-Indians during the survey would provide comparative data.

In all, 778 individuals attended the eight-day survey at the Towaoc and Ignacio clinic centers. Four hundred eighty-six were Utes (roughly half of tribe aged 6 years and over), 158 were Navajos, 27 were other Indians, 46 were Spanish-Americans, and 61 were Anglo-Americans. Representation by sex was about equal, 475 or 61 per cent were of the age group 6-18.

For statistical purposes, the group of "other Indians," which included Apaches, Pueblos, Chippewas, Sioux, Zunis, etc., and who generally either worked or lived with the Utes, will be added to the Ute group. Most of the Navajos represented a separate group inasmuch as more than four-fifths were students at the Ute Vocational Boarding School.

#### Syphilis

Combining information gleaned from results of the VDRL Slide Test, the Kolmer Cardioliipin test, and the TPI tests, it was found that of 775 people screened, 37 showed positive tests, 36 were weakly positive reactors, and 13 specimens were hemolyzed.

By race, total reactors among the 497 Utes (and other Indians) screened totaled 61 or 12.3 per cent. One hundred fifty-eight Navajos presented eight reactors for a percentage of 5.1 and reactors among the 107 non-Indians screened were four or 3.7 per cent.

TABLE 1  
Serologic Tests for Syphilis by Race

Race	No. Screened	No. of Positives and W.P.'s	% Pos. and W.P.
Ute Indians .....	497	61	12.3
Navajo Indians .....	158	8	5.1
Non-Indians .....	107	4	3.7

It was interesting to note that among the Utes, female reactors almost doubled male

reactors in contrast to non-Indian ratios for male and female. Among non-Indians (equal distribution of Anglo and Spanish-Americans both among males and females) males only were infected. As the non-Indians screened lived either on or near the Ute reservation, this phenomenon may suggest an interesting social problem.

No congenital syphilis was found on the survey among Utes aged 6-15 years either by examination or serologic test. Follow-up on adult syphilis also failed to provide us with cases of congenital syphilis (birth rates of Utes are about same as national birth rates). Ute reactors shown by percentage of age groups demonstrated higher rates with aging both among females and males. Navajos and non-Indians also tended to show more reactors among the older age groups although this statistic is not significant by reason of the small numbers. Two Navajos and one non-Indian under the age of 15 were found to be reactors. These tests (all WP) eventually proved to be biological false positives. Two dark-field positive primary lesions of syphilis were also found by physical examination among Ute males, age 25-34.

#### The TPI Test

The Communicable Disease Center at Chamblee, Georgia, performed forty-nine TPI's among the first sixty-seven blood

samples sent to the center and correlations were made with the results of the serological tests. Of fifteen positive or WP reactors found by VDRL or Kolmer tests among the same forty-nine blood samples, twelve TPI's substantiated the results of the STS. The three cases of discrepancy (STS reactor but neg. TPI) were all aged Indians, WP STS reactors, and had been treated for late latent syphilis with penicillin in 1950-1951. One TPI test was positive when all STS were negative. This Indian has not been located for diagnosis as yet.

#### Disposition of Reactors

By February 1, 1956, all but thirteen of the sixty-one total reactors had been located and diagnosed at our follow-up VD Clinics. This was quite an undertaking in view of language difficulties, lack of concise addresses, and the 2,260 square miles of reservation to cover. All cases of early syphilis had been interviewed and elicited contacts had led to new cases. Two distinct problems were evident from the final analysis, first, an epidemic of early syphilis among the 18-35 year olds and second, a large backlog of untreated and inadequately treated latent and tertiary lues.

Our final enumeration which included cases from the survey as well as follow-up discoveries found through the survey showed a total of forty-three Utes whom

TABLE 2  
Serologic Tests for Syphilis by Race and Sex

Race	No. of Male Reactors	Total Males Screened	% Reactors	No. of Female Reactors	Total Females Screened	% Reactors
Utes .....	20	235	8.5	41	262	15.6
Navajos .....	4	81	4.9	4	77	5.2
Non-Indians .....	4	47	8.5	0	60	0.0

TABLE 3  
Serologic Tests for Syphilis Among Utes by Sex and Age

Age Groups	No. of Male Reactors	Total Males Screened	% Reactors	No. of Female Reactors	Total Females Screened	% Reactors
Under 15 .....	0	116	0.0	0	89	0.0
15-24 .....	2	45	4.4	6	73	8.2
25-34 .....	3	21	14.3	7	35	20.0
35-44 .....	5	17	29.4	12	28	42.9
45-54 .....	2	21	9.5	11	27	40.7
55-64 .....	5	12	41.7	1	4	25.0
65 and over .....	3	3	100.0	4	6	66.7
15 and over .....	20	119	16.8	41	173	23.7

we were able to treat for previously unreported syphilis. Of these, eleven were diagnosed and treated for primary and secondary lues, eight for early latent syphilis, twenty-two for late latent syphilis, and three for tertiary syphilis. The latter group included two cardio-vascular cases and one parietic. By physical examination, two additional cases were found to have primary optic atrophy, luetic in origin.

### The Urine Sedimentation Test for Gonorrhea

In an effort to determine the feasibility of using the newly improvised Urine Sedimentation Test as described by Taggart, all persons surveyed over the age of 12 submitted non-catheterized urine specimens. The purpose of this procedure was to determine if such a test might be accurate enough for the screening of potential high incidence groups such as food-handlers, fruit pickers, etc., without subjecting them to the inconvenience, cost, or embarrassment of a thorough physical examination. During the survey, physical examinations for gonorrhea were therefore performed only on all males and on those females who showed a confirmed positive urine sedimentation test result. These examinations would help to evaluate the test under field conditions.

### Rapidity of Diagnosis

Another merit of the urine sedimentation test that could be evaluated was rapidity of diagnosis that it might afford during the survey. A urine specimen submitted early in the survey might enable us to diagnose all gonorrheal cases before the Indians completed the various other screening procedures of the multi-phase project. Each case of gonorrhea, male and female, could thus be treated and interviewed immediately after clinical and laboratory diagnosis. In each case where a presumptive test

(macroscopic pus shreds in acid urine) was found positive, a gram stain of the centrifuged sediment (confirmed test) would follow. If the slide showed definite gram-negative intracellular diplococci, a diagnosis of gonorrhea was awarded. Confirmed positives among males were compared with clinical findings from the examination and each case was evaluated carefully before a final diagnosis of gonorrhea was made. If the confirmed test of the urine sedimentation procedure implicated a female, a pelvic examination would follow with smears and cultures made of the urethral and cervical ora in usual fashion employing standard laboratory technics. All females with a positive confirmed test were treated before they left the survey.

Of the 778 individuals who participated in the survey, 519 submitted satisfactory specimens for the urine sedimentation test. The remainder included 245 children aged 6-12 who were not asked to provide specimens and fourteen older people who either could not provide a specimen at the time or who did not void a sufficient quantity for the test.

Eighty-two presumptive positives (15.8 per cent) among the 519 persons screened were elicited but the confirmed positives proved but thirty-three (6.4 per cent). It was interesting to note that among males, the ratio of confirmed positives to presumptive positives was about half that of the female group. On final analysis, 40.2 per cent of the presumptive positives were confirmed with the gram stain test.

### Confirmed Positives

Eleven cases of gonorrhea, ten acute and one chronic, were diagnosed clinically among the males by physical examination and definitive history. All of these cases except the one of chronic gonorrhea showed characteristic purulent discharge. Of the

TABLE 4  
Ratio of Presumptive Positives to Confirmed Positives for the Urine Sedimentation Test by Sex

Sex	No. of Presumptive Positives	No. of Confirmed Positives	% of Conf. Pos. to Pres. Pos.
Male .....	35	9	25.7
Female .....	47	24	51.1
Total .....	82	33	40.2



**TABLE 5**  
**Gonorrheal Positives by Race**

Race	No. Screened	No. of Gonorrheal Positives	% of Gonorrheal Positives
Utes .....	332	31	9.3
Navajos .....	86	4	4.7
Non-Indians .....	101	0	0.0

ten acute cases, nine proved to be presumptive and confirmed positives on urine sedimentation tests. The other "acute gonorrhea" was a presumptive positive but negative on the confirmed test and the case of chronic gonorrhea was found neither to show a presumptive nor confirmed positive test. At least, there were no confirmed positives among the males who did not have clinical gonorrhea. This suggests that among males, the urine sedimentation test may prove to be a valuable tool for screening gonorrhea as the margin of error is well on the side of reason. Whether or not the two above mentioned exceptions were actual cases of non-specific urethritis could not be determined. Follow-up of the two cases indicated complete cure from the 600,000 units of procaine penicillin administered.

Eight of the group of twenty-four females found to have confirmed positives on the urine sedimentation test submitted to urethral and cervical smears and cultures. Careful smears were taken from both ora and the swabs cultured in chocolate agar with CO<sub>2</sub> but the cultures failed to confirm the urine sedimentation test results in this group. It was also noteworthy that none of the eight females had obvious clinical gonorrhea on examination.

The urine sedimentation test, although an interesting procedure and well adapted to quick and simple screening of large groups, deserves more research before it can be considered an effective method of screening gonorrheal cases. Our field trial in the San Juan Basin suggests that acute gonorrhea in the male helped to confirm the validity of the test but female gonorrhea still remains the major enigma of laboratory diagnosis. Basically, the entire problem of evaluating the test rests on adequate controls and statistical comparison with an effective means of diagnosis. Even standard

procedures of smear and culture including clinical examination of females are frequently unreliable. At best, cultural confirmation of clinical gonorrhea in females is about 75 per cent accurate. Our study, then, is essentially inconclusive in establishing the urine sedimentation test as a routine screening procedure for local health departments but we shall continue to use it until research finds a better method of screening select groups for gonorrhea.

#### Gonorrheal Positives

For the purpose of determining the prevalence of gonorrhea among those individuals screened on the survey, we have tabulated all those that were treated. This group includes males diagnosed clinically and females who showed a confirmed positive urine sedimentation test. We shall call these cases "Gonorrheal Positives."

Rates of gonorrhea among the Utes tend to support the high rates of syphilitic reactors seen in Table 1. The Navajos once more seem to fall into a distinct group as compared to the Utes and the non-Indians. Females, especially Navajo females, show somewhat higher rates of gonorrhea than do their male counterparts. A somewhat surprisingly high percentage of Utes, males and females, 45 years or older, were found to be gonorrheal positives. In contrast to Table 3 where both male and female syphilitic reactors increased proportionately with age, only male gonorrheal positives did the same in Table 7. In fact, Ute males over the age of 44 were more heavily infected than Ute males under that age. Among Ute females, the problem was somewhat reversed as younger females showed more infection than the older women. This point is shown more clearly in Table 8.

Among the four Navajo gonorrheal positives, one was a male (55-64 years) and

**TABLE 6**  
**Gonorrheal Positives by Race and Sex**

Race	No. of Male Positives	Total Males Screened	% Positives	No. of Female Positives	Total Females Screened	% Positives
Utes .....	10	140	7.1	21	192	10.9
Navajos .....	1	48	2.1	3	38	7.9
Non-Indians .....	0	44	0.0	0	57	0.0

**TABLE 7**  
**Gonorrheal Positives Among the Utes by Sex and Age**

Age Groups	No. of Male Positives	Total Males Screened	% Positives	No. of Female Positives	Total Females Screened	% Positives
Under 15 .....	0	24	0.0	3	26	11.5
15-24 .....	1	44	2.3	5	69	7.2
25-34 .....	3	21	14.3	7	33	21.2
35-44 .....	1	17	5.9	3	28	10.7
45-54 .....	2	21	9.5	3	26	11.5
55-64 .....	3	11	27.3	0	4	0.0
65 and over .....	0	2	0.0	0	6	0.0
15 and over.....	10	116	8.6	18	166	10.8

**TABLE 8**  
**Gonorrheal Positives Among the Utes by Sex and Age (Based on Table 7)**

Age Groups	No. of Male Positives	Total Males Screened	% Positives	No. of Female Positives	Total Females Screened	% Positives
12-44 .....	5	106	4.7	18	156	11.5
45 and over .....	5	34	14.7	3	36	8.3

three were females (15-24 years) who attended the Ute Vocational School on the Ute reservation. No positives were elicited from Navajo male students at the same boarding school. Sex distribution of Navajo students is about equal.

Three cases of chancroid were found among Ute Indian males on physical examination. Granuloma inguinale and Lymphopathia venereum have been reported neither on the reservation nor among the non-Indian population of the San Juan Basin.

### Discussion

A serious problem of syphilis and gonorrhea existed on the Indian reservation. This included old cases of syphilis as well as an epidemic of lesion syphilis. That this problem is not universally existent on other Indian reservations is shown by the relatively low rates of VD among the Navajos. The Navajos on the survey come from vast desert areas in New Mexico and Arizona where most of the Indians remain un-

touched by non-Indian culture. By comparison, the Utes live in a somewhat congested area of non-Indian culture and are in constant association with the competitive world. The problem of a transitional life with its attendant social conflicts is evidenced in the high rates of VD among the Utes. Similarly, our survey will point out in a later paper that the Utes are beset by peptic ulcer and hypertension more than their Navajo brethren. The Utes long have been considered a somewhat "promiscuous" tribe but this has been generally among themselves. There is no established family unit system as seen in our own culture and children born in the tribe may be brought up by cousin, aunt, or friend without dependence on any one person for strong love attachment. As a result, Ute adults change marital partners many times during their life depending on their personal preference at the time. Monogamy is universal, however, and the home is usually intact with the children well cared for while a particular couple is living together. The Utes do

not compete with each other, only with outsiders and then only as a tribe. The acquisition of a material way of life recently has been an attempt to meet their light-skinned neighbors on an equal social level. This social change has brought about freer association with the non-Indians and resulted in numerous social problems. At Ignacio, the Utes tend to mingle with the Spanish-Americans and three of the four cases of syphilis found among the non-Indians there were of Spanish-American name. A number of Towaoc Ute girls find solace in the taverns of the neighboring city of Cortez and mix with Anglo-Americans, usually transients. The epidemic of lesion syphilis noted is no doubt based on this recent social problem which has led in instances to an overextension of promiscuity into non-Indian circles. For example, one Ute girl with secondary syphilis named seven oilmen as contacts. Alcohol and the auto have also helped to provide a shortening of the bridge between Indian and non-Indian.

It should be pointed out that the most important phase of the survey was the follow-up. Our follow-up of survey cases led to a larger number of early cases of syphilis than the survey found alone.

That no cases of congenital syphilis were found in spite of a high number of adult reactors can be explained by the fact that for the past decade, the health program has educated Indian mothers to accept modern hospital facilities for delivery. Modern hospitals in Ignacio, Cortez, and Durango have received nearly 100 per cent of the Indian mothers for delivery.

The survey results also helped to point out that whereas Ute females tend to consort with non-Indian males, Ute males do not mingle with non-Indian females. In a rural area where native non-Indian families are relatively stable and where the natural gas and uranium boom attracts large numbers of young males from all over the nation, this is understandable. Ute males tend to compensate, however, by associating

with Navajo females who board at the reservation school.

One remaining problem, still unexplained, is why Ute males, 45 years or older, show more acute gonorrheal infection than Ute males less than 45 years of age. Although most cases of lesion syphilis among Ute males were discovered in the younger age groups, it was interesting to find one Ute male with secondary syphilis, aged 70.

#### Summary

The venereal disease problem of the Utes evolved from the Ute Indian Multiphasic Health Survey data (September, 1955) is described both as to extent and social implications. Ute syphilitic reactors over the age of 14 averaged 20.9 per cent and Ute gonorrheal positives for the same age group as obtained by clinical examinations and urine sedimentation tests totaled 9.9 per cent. Comparisons were made with Navajo Indians and non-Indians who were screened at the same time. Through the survey, eighty-one persons were found and treated for venereal disease. An excellent start was made toward the improvement of the health of the Ute Indians to enable them to move closer to rehabilitation in a competitive social system. Eventually, the various racial groups of America will blend harmoniously, each contributing its best toward a common end and providing America with even higher achievements in a democratic way of life. The Utes are leading the way among Indian nations.

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*Rocky Mountain Cancer Conference, Denver, July 10-11*

# Intermittent Dicumarol Therapy\*

George Simson, M.D.

ALBUQUERQUE

*Herein is a clear summary of complex physiologic data pertinent to clinical use of dicumarol, an exposition of an intriguing variation in the manner of its administration, and a brief statement of clinical results so obtained.*

IT IS our purpose here to summarize a clinical study of the intermittent dosage technic of using Dicumarol in a group of 152 consecutive patients over a three-year period. Although literature on this subject is considerable, there has been much confusion in application of this technic of Dicumarol administration as compared with the more commonly used daily dose method. By 1950, physiologic studies had revealed the following pertinent information relative to the chemical fate of Dicumarol in the human being<sup>1</sup>. Following intravenous administration of Dicumarol, a rapid decline of the plasma level occurs in the first five hours, probably due to shift of the drug from the plasma to the tissues. Thereafter, there is a slow disappearance of the drug from the plasma, presumably reflecting the rate of metabolism of the drug. No more than 1 per cent of the administered amount is recoverable in the urine. The prolonged duration of action of Dicumarol is in part due to this slow metabolism. It was further found that the rates of metabolism showed considerable individual differences. Some subjects had measurable plasma levels of Dicumarol for over nine days, while other patients demonstrated negligible levels after two days. If the interval between two doses is sufficiently prolonged so that the first dose is completely metabolized, similar plasma levels are reproduced on repeated administration of the drug.

Rate of disappearance of the drug depends not only on the individual, but on the quantity of Dicumarol administered. The larger the dose the slower the plasma level declines. As a consequence, plasma levels are not proportionate to the dose of the drug administered. Doubling a dose results in a plasma level far greater than would be expected. Vitamin K administration does not affect the metabolism of Dicumarol in these patients, despite its effect upon the prothrombin time.

On oral administration of Dicumarol the amount recovered in the stools is variable. In some patients little or no drug is recovered, while in others as much as one-third of the total dose is found in the stools. With complete absorption, plasma Dicumarol levels are the same as those following intravenous administration of the same dose. Considerable time elapses between oral administration of Dicumarol and attainment of the peak plasma level, indicating that absorption is slow. In a given individual small doses are absorbed faster than large ones.

Studies on the relationship between the Dicumarol plasma level and the prothrombin time indicate that there is a threshold level of Dicumarol concentration for each individual under which no prolongation of prothrombin time occurs. When this threshold value is exceeded, elevation of prothrombin time begins. Peak plasma level of the drug rarely occurs until twenty-four hours after ingestion. Maximal change in the prothrombin time is usually delayed an

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additional forty-eight hours. Therefore, the latent period of prothrombin response following administration of Dicumarol is a resultant of these two factors: slowness of the absorption, and the time it takes for absorbed Dicumarol to effect a change in the prothrombin time activity. This variation in absorption, metabolic degradation, and conversion is characteristic of the physiologic disposition of Dicumarol and explains its unpredictability. Since the peak response to a single oral dose of Dicumarol, as reflected in the prothrombin time, is delayed at least forty-eight hours, it appears unwise to administer a second dose on succeeding days.

Although the average patient metabolizes Dicumarol in a period of seven days, there are a significant number who still show an effect for two or three weeks. On the other hand, there are a small number of patients who have a maximum effect in forty-eight hours, and a fall in prothrombin time to normal levels in the following twenty-four to forty-eight hours. Difficulties encountered in Dicumarol therapy are due to failure to recognize these individual variations in metabolism.

If a patient is given a single adequate dose of Dicumarol, of the order of 600 to 1,200 milligrams, and prothrombin time is followed daily by precise technics, a symmetrical prothrombin time curve will be found. If this is not obtained, technics should be suspected. The curve rises from the control level to a peak and returns to the base line in most instances in from five to eight days. Variation from four to twenty-four days has been observed. On repeating the same dose, assuming there have occurred no conspicuous changes in clinical status, a similar prothrombin curve will be observed. A patient's response to a single dose of Dicumarol is fairly reproducible. When Dicumarol is administered daily, the plasma levels are irregularly cumulative.

In view of slow and erratic absorption of the drug, and the delay and variation in the prothrombin response to a single dose, the following scheme has been proposed. An initial prothrombin time is determined, and a single dose is given, the size depending

upon several factors. Older patients are more sensitive than younger ones to the drug. The dose is proportionately increased according to weight. Anemic patients are sensitive to smaller quantities, while polycythemic patients are quite resistant. Liver disease which affects prothrombin synthesis is extremely important. An adequate dietary intake is essential for consistent response to therapy, any unusual changes in the diet accentuating the prothrombin response to a given dose of the drug. Renal disease does not influence the decision. Obviously, the more urgent the situation under treatment, the greater the indication for a larger dose.

In all cases, both the whole and the dilute plasma (12.5 per cent) prothrombin times are determined. In many instances, a hypercoagulability of blood, as shown by a low or rapid prothrombin time, especially in the *dilute* (12.5 per cent) plasma, has led us to use larger doses. Conversely, a prolonged dilute prothrombin time has led us to use smaller doses. Normal control prothrombin times in our laboratory are 12 seconds whole, and 34 seconds dilute plasma. A therapeutic range has been considered one in which the prothrombin time is approximately two to two and one-half times the normal control. We have endeavored to maintain patients within a therapeutic range of 25 to 45 seconds whole prothrombin time.

The patient, having been evaluated, is given an initial dose, generally 600 to 1,200 milligrams. This total is administered within twenty-four hours in 200 milligram fractions to avoid gastric irritation. Prothrombin time is obtained on the third, fourth, and fifth days. If a therapeutic level is achieved with this first dose, a second dose of 50 per cent of the initial amount is given when the prothrombin time *falls* to 25 seconds. If the first dose results in a hypo-prothrombinemia exceeding 50 seconds in the whole prothrombin time, the second dose is adjusted downward. Again, this is only administered when the prothrombin time *returns* to approximately 25 seconds. If the first dose is not quite effective, a larger second dose is given. Although the physician may



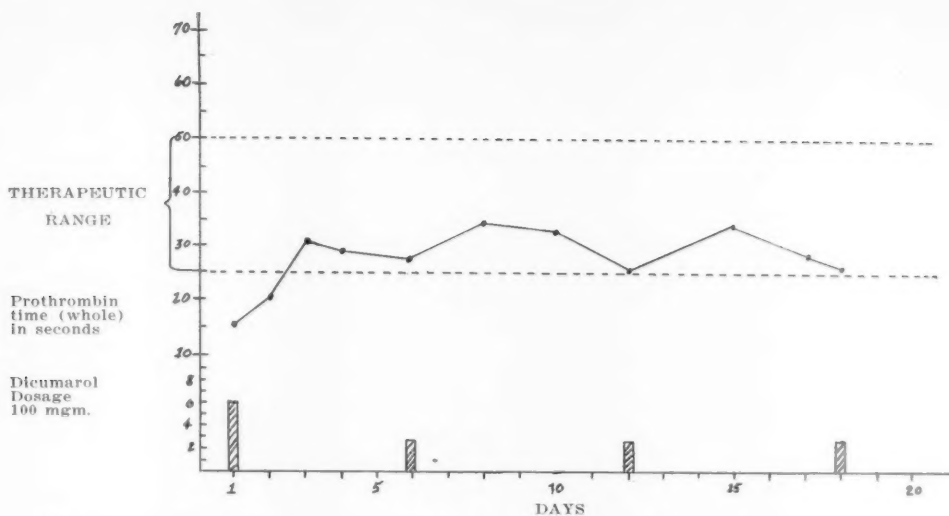


Fig. 1. An example of excellent control in a six day "degrader" of Dicumarol. Initial dose of only 600 mgm. produced a therapeutic response in forty-eight hours. The second dose of 300 mgm. reproduced the prothrombin time curve which lasted six days. A third dose of 300 mgm. resulted in a similar prothrombin response as the second. A fourth dose was given and no further blood tests were drawn. The patient illustrates a six day "degrader" of 300 mgm.

err on the first dose, he will know in which direction he has done so. Following the initial dose, we were able to achieve a therapeutic response within forty-eight hours in 95 to 98 per cent of our patients.

Subsequent evaluation of the dosage is readily achieved following the second dose

of Dicumarol. Fig. 1 illustrates an average patient, one who metabolizes Dicumarol in approximately one week. The first dose of Dicumarol led to an adequate level of hypoprothrombinemia. The second dose of Dicumarol represents 50 per cent of the initial dose. Daily prothrombin times are now un-

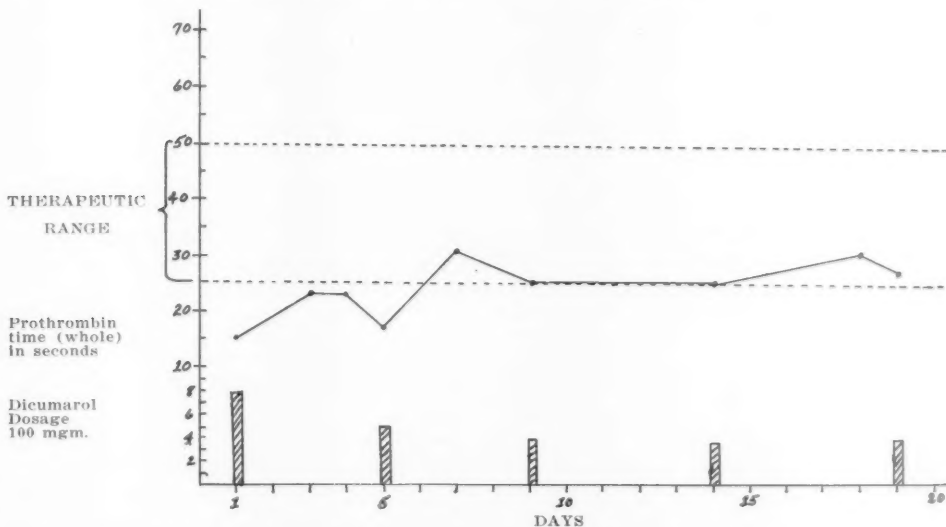


Fig. 2. Initial dose of 800 mgm. did not result in a therapeutic response. As soon as it was ascertained that the prothrombin time was falling, a second dose (greater than 50 per cent of the first) of 500 mgm. was given. This caused an adequate response. A third dose of 400 mgm. maintained the response. Note that only nine tests were needed to establish control over a nineteen day period. This patient was found to be a five day "degrader" of 400 mgm.

necessary, since subsequent curves will be similar. In a patient who is a seven day "degrader" of Dicumarol, the prothrombin time following the second dose is determined on the third or fourth day in order to find the peak response. After this, it is checked on the sixth or seventh day to determine the proper time and amount of the third dose. If the second dose maintains the therapeutic range satisfactorily, the third dose should be the same as the second. At this point there is no need to determine the prothrombin time until the sixth or seventh day. Thus the patient has been maintained with a minimum of blood tests. Figs. 2 and 3 demonstrate instances of adjusting the treatment and arriving at the proper maintenance dose.

An average patient who requires the drug for approximately six weeks needs about sixteen tests. More important, however, is the matter of maintenance of patients on chronic anti-coagulant therapy. There are a number of patients included in this series who have been on Dicumarol for over three years. Prothrombin time determinations are usually done every three to four weeks. In many instances, this would have been financially impossible if this system were

not utilized. It has been our experience that physicians who have undertaken this technic after recognition of its simplicity, have been most enthusiastic.

Utilizing the above methodology, 185 courses of anti-coagulant therapy were administered to 152 consecutive patients over a period of three years. Of the 152, ninety-four were members of the A.T.&S.F. Hospital Association and fifty-eight were from private practice. During this period, eleven patients received two courses of therapy, and three received three courses. The conditions treated are summarized in Table 1.

During this period, the total number of treatment days was 16,503, or 45.7 patient years. Excepting six cases, patients were considered to be within the therapeutic range only if the whole prothrombin time was above 25 seconds at all times. The six exceptions were patients with active ulcers or a bleeding tendency and were kept between 20 to 35 seconds. Including all cases, a therapeutic range was achieved for 92 per cent of the total time.

Two patients had an extension of their myocardial infarction while on anti-coagulant medication. This is an incidence of 3.9 per cent as compared with Wright's<sup>2</sup> report

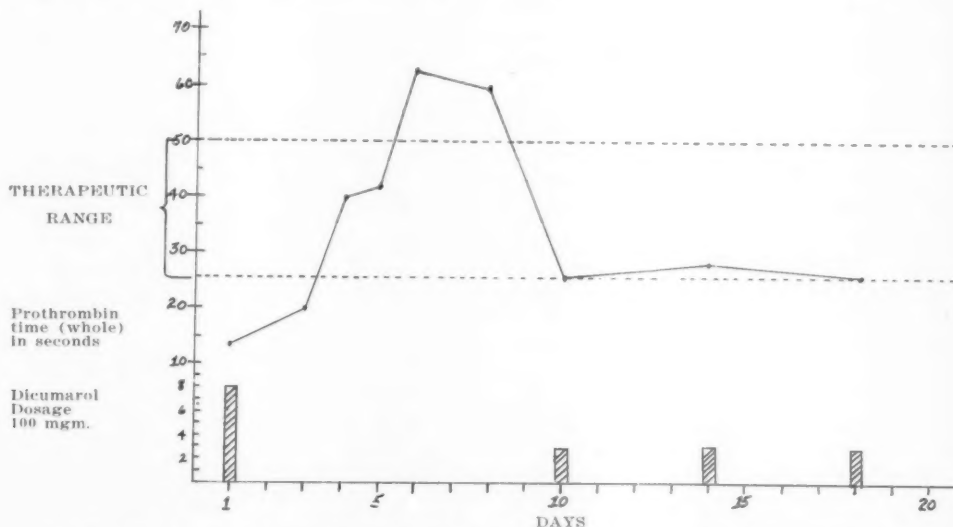


Fig. 3. Initial dose of 800 mgm. caused a marked hypoprothrombinemia. Despite no further drug, the prothrombin time rose to sixty-four seconds. No other measures were taken, however, and the tests were followed. No bleeding occurred. A subsequent dose of only 300 mgm. (less than 50 per cent of the first) was given when the prothrombin time had fallen, and it was determined that this quantity every fourth day was needed for control. Note that only nine tests were required to determine the patient's metabolic response over an eighteen day period.

TABLE 1

1. Medical .....		111
A. Primary phlebitis or phlebo-thrombosis.....	47	
B. Myocardial infarction.....	51	
C. Peripheral vascular disease.....	5	
D. Cerebral vascular accident.....	8	
1. Thrombosis .....	7	
2. Embolus .....	1	
2. Surgical .....		10
A. Primary phlebitis-postoperative.....	6	
B. Phlebitis associated with pregnancy.....	4	
3. Prophylactic.....		24
A. Medical (coronary insufficiency).....	10	
B. Surgical .....	14	
4. Pulmonary embolism.....		32
A. Medical .....	17	
1. No primary site.....	5	
2. Secondary to coronary.....	2	
3. Secondary to aur. fibrill.....	2	
4. Secondary to phlebitis.....	8	
B. Surgical .....	15	
1. No primary site.....	6	
2. Secondary to phlebitis.....	7	
3. Complication of pregnancy.....	2	
5. Miscellaneous .....		8

of 9 per cent. Hematuria, gross or microscopic, was noted twenty-one times, or in 11 per cent of the cases. In short term therapy, about 7 per cent incidence has been reported, in contrast to 25 per cent with long term therapy. Actually, our group consists of long term patients for the most part. Sixteen of the patients were maintained on Dicumarol and the bleeding ceased spontaneously. Rectal bleeding was noted twice. One patient was found to be bleeding from an unsuspected adeno-carcinoma, and the other had severe ulcerative colitis which required colectomy. One patient had vaginal bleeding which necessitated a dilatation and curettage, at which time retained placental tissue was found. Petechiae and/or ecchymosis were noted sixteen times, but did not influence therapy.

Four of the fifty-one cases under treatment for coronary occlusion died, or an incidence of 8 per cent. Wright had an incidence of 15 per cent. The average age comparison is 60 years and 59 years, respectively, for the two groups. Four other patients died while receiving Dicumarol. One died of cardiopulmonary failure following chest surgery. One 69-year-old male died of a subarachnoid hemorrhage. One 69-year-old

male died of a clinical arrhythmia. One 64-year-old died on the 46th day of treatment. Autopsy revealed marked generalized arteriosclerosis, old occlusions of both coronary vessels, prominent myocardial fibrosis, recent fresh myocardial hemorrhages, old and recent mural thrombi, pulmonary edema, chronic passive congestion, and old and recent encephalomalacia.

Because of our low coronary mortality rate, it might be misconstrued, as suggested elsewhere, that the rate reflects availability of medical attention. Obviously, if a patient is treated elsewhere, and then transferred after the acute insult, only those that survive will be included in the series. Of our fifty-one cases, twenty-nine were seen within six hours of the attack, five within the first twelve hours, six within the first twenty-four hours, and only eleven more than twenty-four hours after the attack.

#### Summary

A more practical method for the routine use of Dicumarol is recommended, based upon sound physiologic grounds, and a three-year clinical study of the practicality of the technic in various thrombo-embolic states is reported.

(Turn to page 759 for references)

## New Concepts in Liability Suits\*

J. Howard Toelle, LL.M.

MISSOULA, MONTANA

*We should be frequently reminded, and ever mindful, of our professional and legal responsibilities to patients. Violation may result in embarrassment — and expense!*

CHISELED in stone above a laboratory building at the Harvard Medical School is the inscription "Life is short and the art long, the occasion instant, experiment perilous, decision difficult." While the inscription points to many things, among them is indication that lawyers and medics share alike the tenet of uncertainty. The lawyer is not always able to predict with certainty what judges and juries may do, the doctor unable always to diagnose and treat with certainty human beings — average, above average, and below, oftentimes emotional and unstable.

Civil liability of the doctor, when it obtains, is usually in tort, and also of the three principal fields of liability, intentional misconduct, negligent misconduct, and liability without fault; the first two pertain to the work of the doctor. We begin with the first, *failure to obtain proper consent for an operation may render the surgeon liable for an intentional assault and battery*. Absence of negligence is immaterial, and nominal damage is inferred in the absence of an actual injury. As to what is proper consent, the following principles apply:

1. *Express prohibition bars implied consent*. Thus, Hop Sang twice told the surgeon to fix the hand but not to cut it off, as he wished to be treated by his own physician in a nearby town. After anesthetic,

Dr. Mulloy decided it to be an emergency and cut off the hand. It was held that Hop Sang could recover damage though the operation was necessary and was skillfully done. *Western Weekly Reports*, 714 (Alberta—1935).

2. *Vague prohibition does not bar emergencies beyond the contemplation of the parties*. In *King v. Carney*, 85 Okla. 62, 204 P. 270, a married woman presented herself for an operation so she might have children. The doctor operated, but found the tubes and ovaries so diseased that to save the patient's life he removed them along with the uterus. It was held that the doctor was not liable under circumstances of the emergency.

3. *The patient may attach conditions and prohibitions to express consent*. Thus, in *Rolater v. Strain*, 39 Okla. 572, 137 P. 96, a patient authorized an incision for drainage of a septic big toe, but provided that no bone was to be removed. The doctor took out a loose sesamoid bone blocking access to the affected joint. The doctor was mulcted in damages; he should not have bound himself to a condition incompatible with good surgery.

4. *The doctor may discover conditions in the course of an operation which lie outside the express consent originally given*. If the discovered condition is an imminent threat to life or a grave injury to health, the surgeon may do those limited things deemed necessary by good surgery. But if it is a non-emergency, the surgeon will be held for an unconsented-to operation. Of

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course, a surgeon employed to do appendectomy has no authority to take out the tonsils. But a Minnesota case of *Mohr v. Williams*, 104 N.W. 12, has been criticized. There a jury was allowed to find a \$14,000 verdict against the surgeon who, treating a patient for ear trouble (right side consented-to), after anesthetization, operated on the left side. It would seem that with no express prohibition of operation on the left side, it is not so clear that the operation was outside the area of consent.

5. *Consent may be implied in fact from surrounding circumstances or conduct.* Thus, in *O'Brien v. Cunard Steamship Co.*, 154 Mass. 272, 28 N.E. 266, consent was inferred for a woman coming into the U.S., where notices were posted about the ship, and plaintiff joined a line of immigrants waiting to be vaccinated, the result being to avoid delay in getting into the country, no dissent being expressed when she was asked to hold up her arm.

6. *Implied consent will not be indulged to authorize a materially different procedure from that expressly given when the surgeon has secretly determined upon the extension before anesthetizing the patient.* This suggests such bad faith that the doctor should be held for battery. Thus, in *Pratt v. Davis*, 224 Ill. 300, 79 N.E. 562, the epileptic patient was told some minor repair of the cervix was in order; instead the doctor had decided to remove the uterus and did so. Held: No consent and the doctor had to respond in damages.

7. If the patient submits to surgery under an express consent not limited by express prohibition, he impliedly consents to such extensions as the facts discovered in the course of the operation call for in the performance of good surgery and if no material increase in the total risk is involved. It is believed that *Mohr v. Williams*, 95 Minn. 61, 104 N.W. 12 supra, should have been placed under this principle.

8. *Consent to surgery is implied in law where an emergency exists constituting an imminent threat to life or health and it is impractical to obtain express consent of the patient or his legal representative.* An adult

patient may be unconscious or delirious or insane, or the patient may be an infant. In *Jackovich v. Yocum*, 212 Ia. 914, 237 N.W. 444, a seventeen year old jumped off a moving freight and so fractured the elbow joint as to require immediate arm amputation. The surgeon was held justified, attempts to reach the parents having failed. In *Bishop v. Shurly*, 237 Mich. 76, a boy of nineteen was held old enough to choose a local rather than a general anaesthetic on a tonsillectomy operation. The question has arisen, what result for an immature infant in pressing need of surgery and the guardian objects to the operation? In *re Vasko*, 263 N.Y.S. 552, a court order was secured for the removal of the eye of a two year old over the objection of the parents.

9. *Since the relationship is one of trust and confidence, the doctor's failure to obtain enlightened consent may subject him to liability.* He must generally disclose material facts to the patient; also to the family, that he may secure the reaction patterns of the patient. It is thought there may be some exception to this if the malady is very serious such as cancer and the showing is that the condition of the patient is such that disclosure would aggravate an already highly unfavorable position. In *Kinney v. Lockwood Clinic*, 4 Dom. L.R. 906, there was a considerable risk that the operation would be unsuccessful for a patient with Dupuytren's contracture marked by swelling in the palm of the hand; the doctor knew this but did not so advise the patient. He was held for a battery.

*Coercion vitiates consent*, as in *Meek v. City of Loveland*, 85 Colo. 346, where a wounded party was taken by the police chief to the county poor doctor when he begged to be taken to his own physician asserting his ability to pay.

*Fraud vitiates consent* as in *Regina v. Case*, 1 Den. C.C. 580 (1850) where the patient for suppressed menstruation was induced to consent to sex intercourse. And, of course, mistake vitiates consent as where William Smith is operated on for Henry Smith.

It is held that a general consent is ex-



hausted by the first operation done under it; it will not generally protect a later different operation. Thus, in *Valdez v. Percy*, 56 P. 2d 142 (Cal) the surgeon had consent to removal of a lymph node; he later removed the breast. Held: no consent. But an operation is not over until the surgeon manifests a purpose to consider it so. In *Higby v. Jeffrey*, 44 Wyo. 37, 8 P. 2d 96, the needle accidentally disappeared during the operation; the patient had been sewed up. The surgeon then had her wheeled into the x-ray room, the needle was discovered; the incision reopened, and the needle extracted. It was held that the general consent applied to this subsequent event.

Assuming to act without the patient's enlightened consent and without emergency entails liability for negligence if one is lacking in proper qualifications, facilities, or equipment. Thus, in *Smith v. Chemical Works*, 251 S.W. 155 (Mo.), a former general practitioner withdrew and began clerking in D's chemical plant. Occasionally at the request of the foreman, he would diagnose and treat minor employee ailments. Plaintiff, of age 16, was sent to him; he diagnosed the ailment as cold in the eye; in fact, it was a case of detached retina. P's failure to get timely treatment resulted in the loss of the eye. The defendant was held liable for the rault of its servant.

10. *Legal liability may arise from a premature operation*, as in *Just v. Littlefield*, 151 P. 780 (Wash.) where a mistaken cystic tumor operation was performed; in fact the woman was pregnant. *It may result from delay in operating*, as in *Du Bois v. Decker*, 29 N.E. 313 (N.Y.) where gangrene set in. *Or from failure to perform a necessary operation* as in *Sales v. Bacigolupe*, 117 P. 2d 399 (Cal.) where a married woman stepped on a nail, and the doctor prescribed warm epsom soaks without surgical drainage. *Or from performing an unnecessary operation*, as in *Rainy v. Smith*, 201 P. 1106 (Kan.) where the operation was for pregnancy outside the uterus, and in fact the child was in the uterus, and was later born a normal child.

11. *A doctor will be liable for pursuing a highly dangerous method of diagnosis or*

*treatment before exhausting ordinarily safe methods.* Thus, in *Gottschall v. Griger*, 231 S.W. 87 (Mo.) the doctor removed one ovary and all but one eighth of the other. On a second occasion, the patient came to him with a swelling in the abdomen. The doctor then hurriedly concluded that a tumor operation was called for and performed it. In fact, the lady was seven months pregnant.

12. *Legal liability may arise from methods abandoned or censured by the entire medical profession.* The school of practice doctrine, originally a concession, is now being eroded away. If one goes to one holding himself out as a chiropractor, it would be better legal technic to hold, on proper pleading, that he assumes the risk of that type of practice. And legal liability may arise from the use of experimental methods, without full disclosure of the risk. Thus, in *Kershaw v. Tilbury*, 8 P. 2d 109 (Cal.) an osteopath used a novel diagnostic machine of his own invention.

13. *While a doctor need not accept the patient initially*, *Hurley v. Edingfield*, 59 N.E. 1058 (Ind.), *after entering on the relationship, he cannot refuse to treat the patient*, as in *Ricks v. Budge*, 91 Utah 307, 64 P. 2d 208, where treatment was withheld until the patient first paid the old bill.

14. *Generally, subject to some conflict, in the authorites, and on principle, it is held that treatment by an unlicensed practitioner is not in itself grounds for liability.* *Bute v. Potts*, 76 Cal. 304, 18 P. 329, correctly holds this too collateral for negligence or damage.

15. *Herein of illegal operations, does tort liability follow?* Criminal statutes license the abortion operation only where an imminent threat to the life or health of the mother otherwise exists. Where there is no such threat, does the illegal character of the operation vitiate the patient's consent? On this the authorities are divided. Is it a case of *volenti non fit injuria* or in *pari delicto*? The first militates against recovery; the second is more favorable to recovery, for it is believed, that while both patient and doctor are in fault, they are

(Continued on page 734)

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## PRODUCT INFORMATION

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**PROPERTIES:** Noludar produces refreshing sleep with little likelihood of "hangover" on awakening. Sleep is usually induced within  $\frac{1}{2}$  to 1 hour, lasting for 6 to 7 hours. Therapeutic doses of Noludar are, as a rule, well tolerated.

**INDICATIONS:** Relief of nervous insomnia and daytime tension.

**DOSAGE:** For nervous insomnia, 200 mg at bedtime; if necessary, another 100 mg may be given after  $1\frac{1}{2}$  to 2 hours. For daytime tension, 50 mg three to four times daily.

**SUPPLY:** Noludar is available in scored tablets of two strengths - 50 mg for sedation and 200 mg for insomnia - and in a palatable, cordial-flavored elixir, 50 mg per teaspoonful (5 cc). Tablets, 50 and 200 mg, bottles of 100; elixir, bottles of 16 oz.

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## Current Practices in Dietary Management of

# Infant Allergies

Infants are not born hypersensitive but may develop hypersensitivity to foodstuffs shortly after birth. The earliest sensitizations are likely to be to milk, wheat, eggs and orange juice, with which contact is established early in life. Heredity is usually a dominant factor in the tendency of infants to develop allergy. Infants with a family history of both paternal and maternal allergy tend to develop clinical symptoms earlier than those with unilateral inheritance. Both the allergen and the symptom in the

infant may be different from those of the father or mother.

*Allergic disorders* of infants include gastrointestinal disturbances, infantile eczema, urticaria and asthma. Gastrointestinal allergy may be manifested by vomiting, colicky abdominal pain and diarrhea. Allergic dermatitis may be evidenced by wheal-like cutaneous reactions which may develop into exudative lesions over the scalp, face and body. A systemic food hypersensitivity may produce an asthmatic response manifested by dyspnea and wheezing, although infection is usually associated with this type of response.

*Common treatments* include avoidance of the allergen, desensitization, antihistaminics and, in the presence of infection, antibiotics. Infants sensitive to the proteins of cow's milk whey may be fed human, goat or mare's milk reinforced with KARO® Syrup. Casein-sensitive infants may be offered soy-bean milk or amino acid mixtures reinforced with KARO Syrup.

*The same problems* of infant feeding recur from generation to generation, but solutions may differ with each era. The carbohydrate requirement for all infants is as completely fulfilled by KARO Syrup today as a generation ago. Whatever the type of milk adapted to the individual infant, KARO Syrup may be added confidently because it is a balanced mixture of low molecular weight sugars, readily miscible, well tolerated, palliative, hypo-allergenic, resistant to fermentation in the intestine, easily digestible, readily absorbed and non-laxative. KARO is readily available in all food stores.

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#### WHOLE GOAT'S MILK FORMULAS

Age Months	Fluid Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	No. of Feedings in 24 Hrs.	Total Calories
Birth	10	10	2	3	6	320
1	12	13	2½	4	6	390
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760
7	28	11	3	7½	5	740
8	30	11	2½	8	5	750
10	32	9	2	8	5	760

#### EVAPORATED GOAT'S MILK FORMULAS

Age Months	Weight Lbs.	Evap. Goat's Milk Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	No. of Feedings in 24 Hrs.	Total Calories
Birth	7	6	12	1	3	6	290
1	8	8	16	2	4	6	395
2	10	9	14	3	4½	5	520
3	12	10	15	3½	5	5	590
4	14	12	18	4	6	5	695
5	16	12	21	4	6½	5	695
6	17	13	22	4	7	5	730
7	18	14	21	3	7	5	710
8	19	15	20	2	7	5	690
10	21	16	16	1	8	4	730

#### LIQUID SOY MILK FORMULAS

Age Months	Evap. Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	No. of Feedings in 24 Hrs.	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	5	576
3	10	15	3½	5	4	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	796
7	14	21	3	7	5	780
8	15	20	2	8	4	764
10	16	16	1	8	4	764

#### DRIED SOY MILK FORMULAS

Age Months	Dry Milk	Water Oz.	KARO Tbsp.	Each Feeding Oz.	No. of Feedings in 24 Hrs.	Total Calories
Birth	6	20	2	3	7	360
1	8	22	2	4	6	440
2	9	24	2½	4	6	510
3	10	29	3	6	5	580
4	12	33	3½	7	5	690
5	13	33	3½	7	5	730
6	14	33	3½	7	5	740
7	14	33	3½	7	5	710
8	15	33	2	7	5	720
10	15	33	2	8	4	720

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not in equal fault. Further, in states like Montana where the criminal statute makes the patient an accomplice rather than victim, it would seem there should be no recovery. In other states, where the patient is regarded as the victim, conditions are more favorable for recovery. The torts restatement Secs. 60-61 is against recovery on a principal ground that the possibility of an action may be used for purposes of blackmail and extortion. But it is believed that further analysis might run something like this:

1. Both parties may have guilty knowledge, i.e., neither thinking the operation necessary to the life or health of the patient. While there is conflict here, perhaps the better reasoning favors recovery, the parties not being in equal fault.

2. Both may have guilty knowledge, and, in addition, the doctor may be negligent in the operation, causing injury to the patient. Here it would seem that independently the negligence should entail liability, though it is agreed that some courts will say the illegality "taints the whole pot."

3. The patient may be bonafide; the doctor have guilty knowledge; here there should be recovery. *Herman v. Julian*, 117 Kan. 733, 232 P. 864.

4. The patient may have the guilty mind, the doctor believes the operation essential to save life. Here there should be no recovery.

5. Both patient and doctor may be in good faith due to the doctor's mistaken negligent diagnosis. Here, also, there should be recovery for the doctor's negligence. *Nash v. Meyer*, (Ida.) 31 P. 2d 273.

An interesting question is posed where an operation is performed to destroy the reproductive function. Does illegality vitiate the consent and make the surgeon liable for the tort of battery? At common law, it was a crime of mayhem to hurt a man's body, making him less able in fighting, or less able to defend himself. Weakening a man's hand or finger, or castrating him

were given as examples. However, present-day sterilization, as opposed to castration, involves no alteration of personality, or ability to defend, or to work; at the same time, it involves, shall we say, an asocial alteration of the reproductive function. While we have statutes providing for sterilization of the feeble-minded or insane after hearing before, and authorization by, a competent board, we have other statutes directed against birth control devices (contraceptives) and sterilization except where necessary for the life and health of the patient based on disease.

In *Christensen v. Thornby*, 255 N.W. 620 (Minn.), the court held it not against public policy for a surgeon to sterilize the husband to protect the health of the wife against the risk of pregnancy which her physical condition made undesirable. The court took notice of the more simple surgery effective on the husband as against the risk of the more dangerous operation on the female. However, the operation was unsuccessful, the wife did have a baby, and survived, and, accordingly, the court also found the husband could prove no damage when he sued the surgeon.

Where the right of action is refused to the wife because of her consent under volenti or *pari delicto*, the question arises as to whether the husband could recover against the surgeon for intentional destruction of his chance of heirship? A New Jersey case, *Kreyling v. Kreyling*, 23 A. 2d 803 holds it grounds for divorce for one spouse permanently to use contraceptives over objection of the other spouse; accordingly, it would seem that the surgeon who intends a permanent result by his sterilization operation should be liable in tort to the non-consenting spouse.

16. Many malpractice cases involve application of the law of negligence. In *Trindle v. Wheeler*, 133 P. 2d 425 (Cal.), plaintiff had a sprained ankle; the doctor used diathermy and burned the ankle. Plaintiff relied on the burn and gave no evidence as to standards and methods prevailing among doctors in Riverside. It was held that generally the evidence of expert doc-



tors is indispensable to a malpractice action, that there might be exceptions as where a hot water bottle or compress burns the healthy area, as distinguished from the diseased portion of treatment, or, where as a matter of common knowledge or observation, a layman could detect error as, in operating for tumor on the head, the ear is cut off, or in stitching a wound on the cheek, an awkward thrust carries the needle into the patient's eye. And, normally, the complaining party must, in a civil case, by a preponderance of the evidence allege and prove the precise fault of the doctor constituting the legal cause of the injury of which he complains.

17. *The doctrine of res ipsa loquitur is, however, widely applied in suits for damages for alleged negligence.* This doctrine arose to meet the developments of our complicated industrial civilization outside the malpractice field—injuries caused by machinery, elevators, escape of gas, explosion, electricity, defective foods and drugs. Lately, malpractice cases have witnessed its application. Shortly, it means the thing speaks for itself. Inherent in the Latin is the principle that after certain fundamental facts surrounding an injury are established, unless an explanation is forthcoming, the only fair and reasonable conclusion, if the jury so finds, is that the injury was occasioned by defendant's negligence.

It is said to apply when (1) the accident is of a kind which ordinarily does not occur in the absence of someone's negligence, (2) it must be caused by an agency or instrumentality within the exclusive control of the defendant, (3) it must not have been due to any voluntary action or contribution on the part of the plaintiff and (4) some courts have added—though this is deemed only dubiously valid—that evidence of the true cause of the accident must be more readily accessible to defendant than to plaintiff. The following benefits are obtained by application of the doctrine:

1. Plaintiff is relieved of the necessity of securing an expert witness which, for the usual case, is an absolute essential in malpractice actions for negligence.

2. Plaintiff is relieved of the necessity of pleading the precise act of negligence of the defendant which, not easily accessible to him, would normally be little more than blind guesswork.

3. The doctrine calls upon the defendant to speak first since he is the party to whom the facts are usually available, thus, in some measure, equalizing the knowledge of the cause of the injury.

4. The trial judge must decide whether the case is *res ipsa*, i.e., whether pleading and proof are adequate to raise an inference of negligence permitting the jury to render a verdict for the plaintiff.

5. But the defendant may elect to let the case go to the jury without attempting an explanation.

6. And defendant may elect to make an explanation early in the trial thus saving him undue publicity—maybe injurious to his professional standing.

7. And defendant may conceivably establish the absence of negligence so clearly as to overcome the inference or presumption as a matter of law.

Whatever friends or relatives may think about it, however, the mere fact that a patient dies while under an anesthetic does not in itself create an inference of negligence on the part of the doctor or dentist. Thus it was held in *Louden et al. v. Scott et al.*, 58 M. 645, 194 P. 488.

Experience convinces that certain systemic or temperamental peculiarities of a patient of which the operator has no knowledge or control may often account for death, and though death results from infection, it does not create a situation which justifies the application of the doctrine, for infection may sometimes result though every known precaution is taken. *Wimpy v. Rogers*, 58 Ga. App. 67, 197 S.E. 656. Germs of infection are omnipresent, and the causes thereof and proper treatment are beyond the knowledge of non-experts. The *res ipsa* doctrine has been applied to cases in which the causes of the injury are mat-

ter of common knowledge, and in which the aid of an expert witness is not absolutely essential. Thus, also a hypodermic needle may break leaving the point in the patient's anatomy. *Res ipsa* is not applicable. Expert witnesses will testify that the needle may have been defective as manufactured which inspection did not show, or the patient may have made a sudden and unexpected movement as the needle was inserted. *Mitchell v. Poole*, 229 Mo. App. 1, 68 S.W. 2d 833. The fact that the patient suffers a broken or dislocated jaw in tooth extraction does not give rise to the doctrine. *Hill v. Jackson*, 265 S.W. 359 (Mo.). Generally, the bare fact that a piece of tooth has been permitted by a dentist to remain in the jaw after extraction does not give rise to *res ipsa*, *Alexander v. Hill*, 174 Va. 248, 65 S.E. 2d 661, but where the defendant broke off the top part of seventeen teeth leaving the nerves exposed, without finishing up on each tooth in order, the court held it *res ipsa*, saying, "The doctrine of common sense should have restrained what appears to have been an uncontrolled impulse to adopt a 'high rigging' method of breaking the teeth in this wholesale fashion." *Drinnen v. Douglas*, 2 D.L.R. 605.

Where a tooth slips down the patient's throat, and into the lung, *res ipsa* is held to apply. *Whetstone v. Moravec*, 228 Ia. 351, 291 N.W. 425. And the doctrine has been held to apply to some burns by the x-ray machine, *Razin v. Zimmerman*, 206 Cal. 723, 276 P. 107 (and see *Trindle v. Wheeler*, supra); also to sewing up the patient after an operation and leaving a sponge in the abdomen. *Ales v. Ryan*, 8 Cal. (2) 82, 64 P. 2d 409, 3 So. Calif. L.R. 131.

In *Ybarra v. Spangard*, 25 Cal. (2) 486, 154 P. 2d 687, a plaintiff went to the hospital for an appendectomy. He was given an anesthetic, and awoke the next morning with pain in arm and shoulder. He later developed paralysis and atrophy of muscles about the shoulder. He had never had such pain previously. The lower court granted a non-suit; the higher court reversed, holding it was *res ipsa*, and ruling that all par-

ties who had any control over the plaintiff's body or the instrumentalities that might have caused the injury were called upon to meet the inference of negligence by giving an explanation of their conduct, that such an injury to healthy membrane not the subject of treatment wouldn't ordinarily occur in the absence of someone's negligence, and that the unconscious patient on the operating table was entitled to an explanation since there was no voluntary action on his part. Thus, the finger was pointed at about four doctors and three or four attendants of doctors and hospital. The case is criticised in *Seavey*, 63 H.L.R. 643 and defended by *Prosser*, 37 Cal. L.R. 183, but it shows the length to which the *res ipsa* doctrine may conceivably be carried.

The principle of the *Ybarra* case was affirmed and perhaps extended in *Oldis v. La Societe Francaise*, 279 P. (2) 184 (Cal.), in which plaintiff sustained a third degree burn either during or immediately following surgery. He sued doctors, nurses, and the corporation operating the hospital and recovered \$16,000. The referring physician, one of the defendants, appealed on the ground that he had no control over the plaintiff's body. Although he did not personally care for plaintiff, the evidence was that he frequently called on him in his professional capacity. It was held that the proper test is the right of control of the patient's body or of the instrumentalities which may have caused the injury rather than the actual control; the judgment was accordingly affirmed.

It should be pointed out that, at common law, the plaintiff had to bring separate actions unless the defendants had acted in concert so that they were considered joint tort-feasors. *Casey v. Booth Fisheries*, 124 Minn. 117, 114 N.W. 450. As modified to include cases of separate tort-feasors concurring to cause single injury or damage incapable of apportionment, this is the traditional code rule including Montana. More recently, the new federal rules, including a minority of state jurisdictions, permit joinder of all persons against whom plaintiff alleges a cause of action either

jointly, severally, or in the alternative as long as they grow out of a single transaction or set of facts and raise a common question of law or fact. The principle of the Ybarra decision is applicable in jurisdictions having this broader joinder technique and counsel will seek or resist federal jurisdiction as it suits his side of the case

accordingly. See 7 Stanford Law Review 480. For a collection of cases in which *res ipsa* has been invoked in malpractice cases, see 162 A.L.R. 1265 and 152 A.L.R. 638. See also, Smith, Antecedent Grounds of Liability in the Practice of Surgery, 14 R.M.L.R. 233; Foley, Consent as a Prerequisite to a Surgical Operation, 14 U. of Cinci. L.R. 161.

## Presidential Address\*

THIS past year as your President has been an eventful one and one of extreme pleasure for me. There have been several Council meetings to attend as well as our interim meeting of the House of Delegates in November, 1956. I am sorry that I was unable to visit each component society.

### Medical Practice Act

I believe our Society has made one major accomplishment during my term which necessitated a great amount of time, correspondence, work and travel. I refer to final passage of an amended "Wyoming Medical Practice Act" by the recent Wyoming State Legislature. This has been a major project of our Society for many years. At this point I should like to commend to you our very able Public Policy and Legislative Committee chaired by Dr. Norman R. Black, Cheyenne, and Drs. E. C. Pelton, Laramie; L. H. Wilmoth, Lander; R. P. Fitzgerald, Casper; G. W. Koford, Cheyenne; J. W. Sampson, Sheridan; W. Andrew Bunten, Cheyenne; Brendon Phibbs, Casper, and Sam Zuckerman, Cheyenne. These men have devoted much time and effort to securing passage of this bill and at this point I should like to have the House of Delegates give them an ovation for their efforts.

Your officers have carried out instructions to deliver fifty-year plaques to those

\*Outgoing Presidential Address, presented before the Wyoming State Medical Society's House of Delegates, June 15, 1957, Moran.

Joseph Hellewell, M.D.

EVANSTON, WYOMING

eligible. During this past year, our Society signed a contract with the Defense Department in Washington, D. C., for "Medical Care for Military Dependents." We were able to secure what we think are very adequate fees for services rendered. This fee schedule closely approximates our own new Preferred Blue Shield schedule.

Next, I should like to thank Mr. Arthur Abbey, our Executive Secretary; Drs. Wilmoth, Vice President; Ben Gitlitz, Secretary; Andrew Anderson, President-elect, and C. D. Anton, Treasurer, for their able assistance and advice in helping me with my duties during this past year. Without the help of all of these, no one could hope to function well. I must also mention Dr. Franklin Yoder for his excellent liaison with our Society and the Wyoming Department of Public Health. Another committee that deserves special commendation is the Rocky Mountain Medical Conference Committee which has done a tremendous job in organizing this convention and securing such a splendid scientific program. Your Councilors have met several times and the meetings have been harmonious and fruitful. It has been a great pleasure to work with the Council members.

### Who Will Pay?

So much for the past year. We doctors of Wyoming still have future problems to face and unless we remain organized and

4

alert to our problems, this creeping governmental socialistic trend will finally engulf us completely. At the present time we are taking care of military dependents at what we think is a fair fee but, in reality, we as taxpayers are footing the bill. Would it not be better if our military personnel were paid a living wage so that they might pay their families' medical bills like other taxpayers? Now we have a new law passed by the past Congress which will subsidize each welfare case if the states will cooperate with matching funds. Naturally, we as taxpayers will foot the bill. It is a pity that sons and daughters are unwilling, for the most part, to accept the responsibility for aging and disabled parents. Why must everyone look to a paternal government for such subsidization? There have been several bills introduced in the 85th Congress to amend the Social Security Act to provide hospitalization for all Social Security beneficiaries and their dependents. I believe our Society should work to prevent passage of such legislation. The providing of hospital care, except for service connected injuries or illnesses of veterans and the armed forces should not be a function of government.

#### **Welfare State Trend**

Now, also, all governmental agencies are seeking to have the government provide a share of premiums for accident and health insurance. I think the government will soon run out of taxpayers to pay for all of these services. I believe our Society should be alert to every piece of medical legislation that is brought up so that we may take a stand on these issues and adopt resolutions for or against, before they are enacted. Our new continuing Legislative Committee, I think, is a good plan for keeping all of us informed. If we allow ourselves to sit back and not take a stand against these increasing socialistic tendencies, we deserve to be saddled with additional taxes and loss of our freedoms. This will surely happen; it is happening already. Every doctor should become well informed and work as never before to stop this welfare state trend which is snowballing every year. I believe more doctors should get into the political arena

so that we may more adequately defend ourselves.

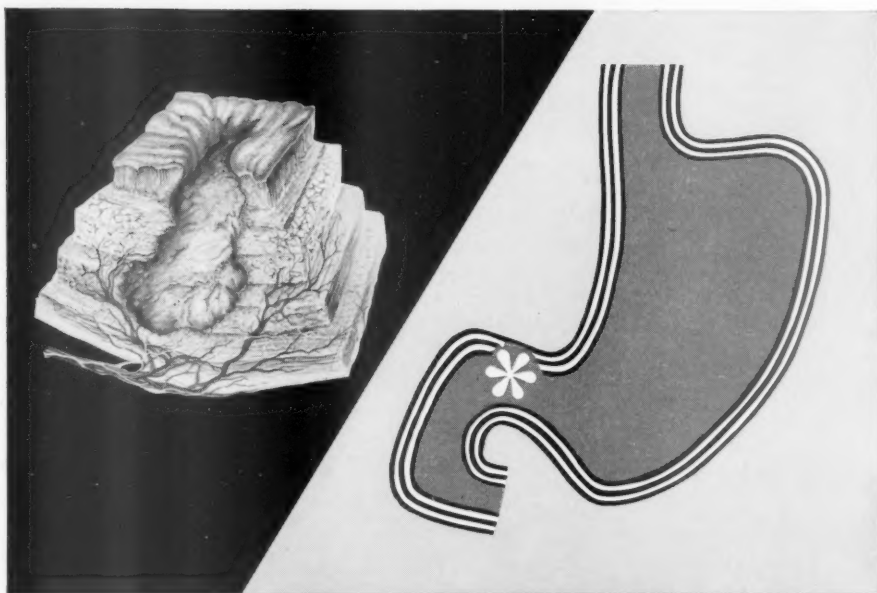
As far as I know now, there were many resolutions that appeared before the American Medical Association which met earlier this month. To my knowledge, our delegates were not instructed as to the majority wishes of our Society as regards voting on any resolution. Recently a Colorado resolution was presented at our Council meeting, April 28, 1957, regarding "panel practices" being unethical and asking for our support. This resolution was discussed and tabled with no action. Since our state meeting usually occurs after the AMA meeting, I think our Legislative Committee should poll all members on various resolutions and other matters of importance which will be brought before the AMA prior to that time so that our delegates may be instructed as to the majority will of our Society. We are the grass roots of the AMA and our opinions and ideas should be offered.

I think that in the future our Society must consider working toward the passage of a "basic science law" now that we have amended the Wyoming Medical Practice Act satisfactorily. This will require a great deal of effort from all of us to secure passage.

#### **Maintain Our Traditions**

May I thank you delegates of the Wyoming State Medical Society for allowing me the honor of serving as your President this past year. There are probably many things left undone, but I am sure you have a capable doctor, H. B. Anderson of Casper, who will carry on this next year and do an excellent job. I should like to quote Dr. Dwight H. Murray, President of the AMA this past year, who recently wrote, "It is the duty and responsibility of our profession to pass on to the younger and succeeding doctors the same privileges and opportunities to practice medicine that we have had. Our freedom in exercising our best judgment and using our capabilities in the care of the sick must never be hindered or hampered. The task of maintaining our traditions may not be easy, but it will be well worth the extra time we devote to this great cause."

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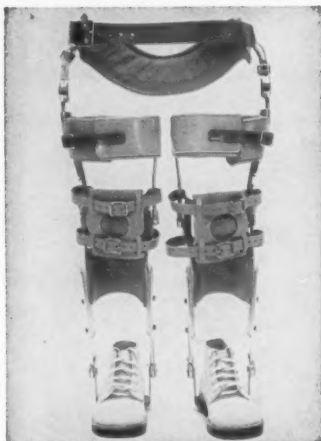
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## ORGANIZATION

### Colorado



#### REPORT OF THE COLORADO A.M.A. DELEGATES

The 106th annual meeting of the American Medical Association was held in New York City from June 3 to 7, 1957. Of the 19,469 physicians attending, sixty-one were from Colorado. Many men attended meetings that were held in New York preceding the AMA. Dr. Fred Good attended the Blue Shield Executive Committee meeting. He is Vice Chairman of the Blue Shield Commission. Drs. I. E. Hendryson, David W. Boyer and Henry Buchtel appeared two days before the official opening of the convention to attend the Civil Defense meeting. At this meeting the effects of atomic radiation, medical management of radiation casualties and a bill calling for reorganization of the Federal Civil Defense Administration were discussed. Criteria for the medical care of surviving casualties and non-casualties as well as for problems of public health and sanitation that would be present in the event of an enemy attack were outlined. Drs. Hendryson, Boyer and Buchtel stated that the lectures were of great value and that they will have a report and a large scale demonstration at the next annual meeting of the Colorado State Medical Society.

All of the delegation attended the Conference of Presidents and other officers of state medical associations held Sunday, June 2, in the Sert Ballroom of the Waldorf-Astoria Hotel. The highlights of this meeting were the speeches by Charles B. Shuman of Chicago, President of the American Farm Bureau Federation, who gave an enlightening talk on "Agriculture Looks at the Future." Oswald D. Hecht, Speaker, New York Assembly, Schenectady, had some very enlightening remarks on the doctor and the legislator. This talk gave the delegates some idea of the problems of being a legislator. Colorado picked up another job at this meeting. Dr. Kenneth C. Sawyer was elected to the Executive Committee.

The delegation from our society included Dr. F. A. Humphrey of the AMA Council on Rural Health; Dr. S. P. Newman of the AMA Council on Scientific Assembly, and Dr. McKinney L. Phelps, co-Chairman of the AMA Committee on Legislation. The official State Society Delegation



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included President George R. Buck, President-elect Gatewood C. Milligan, Constitutional Secretary James M. Perkins, the two delegates to the American Medical Association, Drs. E. H. Munro and Kenneth C. Sawyer; the two alternate delegates, Drs. Irvin E. Hendryson and Harlan E. McClure; two ambassadors-at-large, Drs. Cyrus W. Anderson and William H. Halley. The executive office was represented by Mrs. Geraldine Blackburn, Mr. Harvey T. Sethman and Mr. John W. Pompelli.

A hospitality suite was maintained in the Waldorf-Astoria Hotel and many Coloradoans, former Coloradoans and friends of Colorado availed themselves of the conviviality furnished. Breakfast meetings of the Colorado delegation were held at 7 a.m. on Monday and Tuesday of the convention week, so that all of the resolutions of interest and importance to our state could be evaluated. An attempt was made to assign someone to every reference committee where hearings concerning our welfare were being conducted. Everyone accepted these assignments cheerfully, were faithful in their attendance of the reference committee meetings and the men were very effective in their testimony in these meetings.

To my knowledge, no official member of the group attended a scientific meeting or a social event outside the hotel. This is as it should be,

and we must not consider ourselves martyrs. We are delegated to carry out the instruction of our state society and this must be first and foremost. Colorado accomplished more at this meeting for organized medicine and for ourselves than at any other meeting within my memory.

Our resolution concerning the free choice of physicians was referred to the Reference Committee on Miscellaneous Business, headed by Dr. P. J. DiNatale of New York. At hearings before this Committee, testimony was given by Drs. Munro, Sawyer, Milligan, Hendryson, Buck, Perkins, McClure, and Mr. Sethman. Twenty-eight men testified at the first meeting and of these, twenty-six favored Resolution Number 3, our resolution, concerning free choice of physician. Our resolution, prepared as our own State House of Delegates had instructed last February, read as follows:

#### RESOLUTION NO. 3

(As introduced before the House of Delegates at the June, 1957, Annual Session of the American Medical Association by Drs. Kenneth C. Sawyer and Everett H. Munro on behalf of the Colorado State Medical Society.)

WHEREAS, The time-honored right of the American citizen freely to choose his physician from among all those available and legally qualified has contributed immeasurably to the

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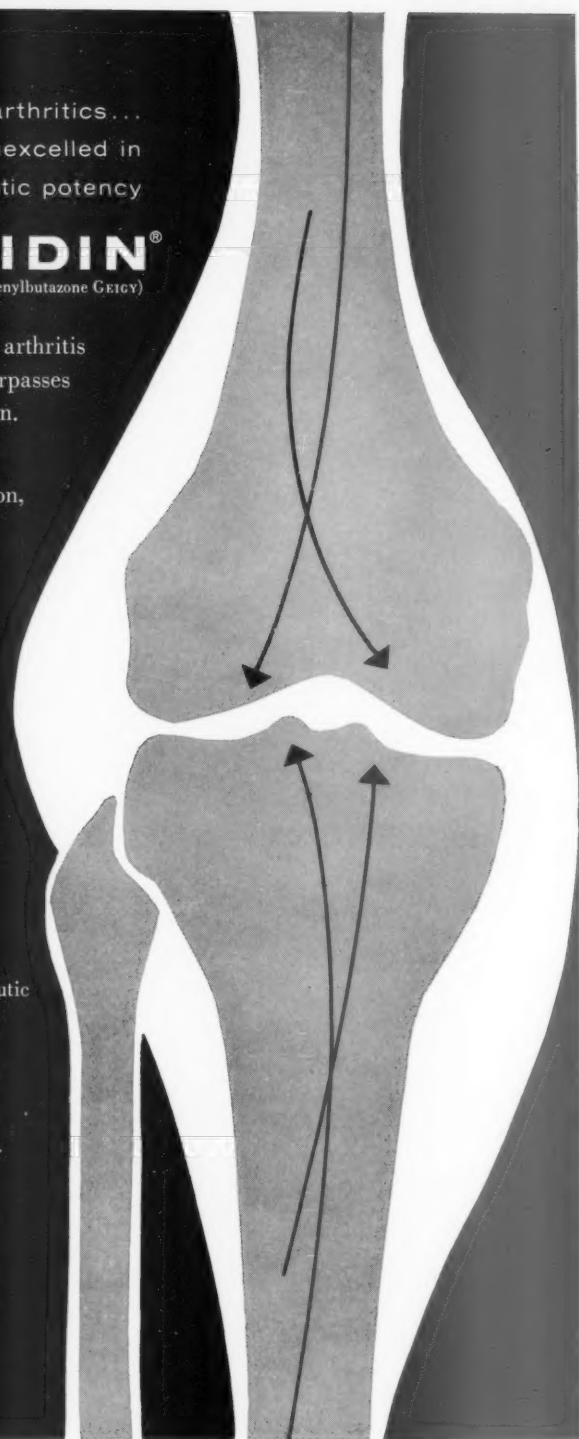
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advancement of American standards of medical care to their present world pre-eminence; and

WHEREAS, Deterioration in the quality of medical care rendered has developed in systems of medical care which deny patients this traditional American right; and

WHEREAS, The definition of the free choice of physician in the Principles of Medical Ethics of the American Medical Association recognizes the validity of interest of a third party interjected between the patient and his choice of physician only when that third party assumes legal and financial responsibility for occupational disease or injury; and

WHEREAS, This House of Delegates reiterated its adherence to this free choice principle as a fundamental right of American citizens which contributes to the betterment of medical care by unanimously adopting Resolution No. 24 at the June, 1956, Chicago Session, thereby directing the Councils on Medical Service and Industrial Health to revise their published "Guiding Principles for Evaluating Management and Union Health Centers" to conform to the free choice principle; now therefore

BE IT RESOLVED, That this House of Delegates again reiterates the adherence of the American Medical Association to the principle of the free choice of physician as currently defined in the Principles of Medical Ethics as being essential to the welfare of the patient; and

BE IT FURTHER RESOLVED, That the Judicial Council is requested to caution all members of the American Medical Association that voluntary participation in systems of medical care which deny patients their right of free choice of physician as so defined, other than as may be required by the mandates of law, constitutes a violation of the Principles of Medical Ethics.

In addition, Utah, Mississippi, Pennsylvania and Alabama had introduced very similarly worded resolutions on the same subject. These five resolutions were considered along with an AMA Board of Trustees report recommending adoption of a set of Guides for Relations with the UMWA Fund that had been prepared by the Joint Committee on Medical Care for Industrial Workers. That evening the reference committee contacted members of our delegation. The committeemen requested our approval of their proposed report that all five resolutions pertaining to the free choice of physician that had been referred to them for consideration would be mentioned by name and number, and approved in principle, but the report would state that implementation of the resolutions was not necessary because the intent had been covered in the Guide for Relations with UMWA Fund. Through some misunderstanding, when the chairman of the Reference Committee made his first report the next morning, the report was distorted in such a manner that it was implied that these resolutions were rejected. One emergency meeting of the Reference Committee on Miscellaneous Business was held that afternoon, and another the next morning, at which time legal advice was obtained. It was stated that the "resolves"



of the Colorado resolution (see above) were applicable in Colorado, but might not be acceptable throughout the entire United States. Therefore, in the final report, all of the resolutions pertaining to free choice of physician were approved in principle but not individually, because the intent of all was covered in the Guides for Relations with UMWA Fund which is presented in Dr. Lull's outline.

Colorado's resolution pertaining to the principles of medical ethics was not accepted. The Council on Constitution and By-laws had worked for five years on the new condensed Principles of Ethics. We had recommended that it be disapproved and rewritten in more detail. In the principles, as finally approved, the broad aspects of all our recommendations were accepted.

Probably the outstanding achievement of our delegation was that carried out by Dr. McKinnie L. Phelps. On Monday morning, June 3, Dr. Phelps, as co-chairman of the Committee on Legislation, presided at a meeting of the key legislative men from each state in the nation. He outlined the purposes of the committee to the key men. Dr. Phelps represented the Colorado Delegation at the Reference Committee on Legislation and Public Relations. He testified on all of the resolutions, and there were many, referred to this committee. The subject matter of these resolutions ranged from civilian use of atomic energy to the doctor draft, federal aid to medical schools and hospitals, medicare, certain important V.A. considerations and many other legislative problems. These were all settled to the satisfaction of organized medicine. Mac took an active part in the debate against compulsory coverage of doctors by Social Security. This debate stemmed from a New York and Connecticut resolution in favor of such coverage and drew not only a very large audience, but an exceedingly spirited debate. Colorado, through Dr. Phelps, is taking the leadership of the entire country regarding legislative problems of the American Medical Association.

Our Rocky Mountain area attained another outstanding victory. The eight Rocky Mountain and Intermountain states, comprising about one-third of the area of the United States, to date had never had an elected Trustee of the American Medical Association. We were able, through our combined efforts, to elect Dr. George Fister of Utah to a five-year term on the Board of Trustees.

This was a very challenging and stimulating meeting and those who stayed through the crucial hours of Wednesday afternoon and evening and Thursday morning to the final showdown, including the election, were rewarded for their untiring efforts.

We again want to express our deep gratitude to our very efficient executive office.

KENNETH C. SAWYER.

for JULY, 1957

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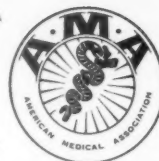
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## National Affairs



### REPORT ON ACTIONS OF THE HOUSE OF DELEGATES, AMERICAN MEDICAL ASSOCIATION

**106th Annual Meeting, June 3-7, 1957  
New York City**

Revision of the Principles of Medical Ethics, relations with the United Mine Workers of America Welfare and Retirement Fund, the federal government's Medicare program, new standards for medical schools, a new statement on occupational health programs and the issue of Social Security benefits for physicians were among the wide variety of subjects acted upon by the House of Delegates at the American Medical Association's 106th Annual Meeting held June 3-7 in New York City.

Dr. Gunnar Gundersen of La Crosse, Wis., member of the AMA Board of Trustees since 1948 and chairman for the past two years, was unanimously chosen President-elect for the year ahead. Dr. Gundersen, who also was first chairman of the Joint Commission on Accreditation of Hospitals from 1951 to 1953, will become President of the American Medical Association at the June, 1958, meeting in San Francisco. There he will succeed Dr. David B. Allman of Atlantic City, N. J., who became the 111th President at the Tuesday night inaugural ceremony in the Grand Ballroom of the Waldorf-Astoria Hotel.

The House of Delegates voted the 1957 Distinguished Service Award of the American Medical Association to Dr. Tom Douglas Spies, head of the department of nutrition and metabolism at Northwestern University Medical School, Chicago, and director of the nutrition clinic at Hillman Hospital, Birmingham, Ala., for his outstanding contributions to the science of human nutrition. For only the third time in AMA history, the House also voted a special citation to a layman for outstanding service in advancing the ideals of medicine and contributing to the public welfare. Recipient of this award was Henry Viscardi, Jr., of West Hempstead, N. Y., founder and president of Abilities, Inc., which employs only severely disabled persons.

Physician registration at the New York meeting had already reached an all-time high at 5 p.m. Thursday with 18,982 counted and scores of registration cards still unprocessed. The previous high was chalked up at the 1953 New York meeting when the five-day total was 17,958 physicians.

## New Principles of Medical Ethics

The House approved the long-discussed revision of the Principles of Medical Ethics, originally submitted at the 1956 annual meeting in Chicago. The final version, presented by the Council on Constitution and By-Laws and then amended by reference committee and House discussions in New York, now reads as follows:

### PREAMBLE

"These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws, but standards by which a physician may determine the propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public.

"Section 1—The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

"Section 2—Physicians should strive continually to improve medical knowledge and skill, and should make available to their patients and colleagues the benefits of their professional attainments.

"Section 3—A physician should practice a method of healing founded on a scientific basis; and he should not voluntarily associate professionally with anyone who violates this principle.

"Section 4—The medical profession should safeguard the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

"Section 5—A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

"Section 6—A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care.

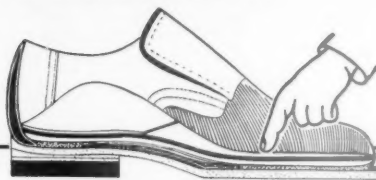
"Section 7—In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him, or under his supervision, to his patients. His fee should be commensurate with the services rendered and the patient's ability to pay. He should neither pay nor receive a commission for referral of patients. Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient.

"Section 8—A physician should seek consultation upon request; in doubtful or difficult cases; or whenever it appears that the quality of medical service may be enhanced thereby.

"Section 9—A physician may not reveal the confidences entrusted to him in the course of medical attendance, or the deficiencies he may observe in the character of patients, unless he

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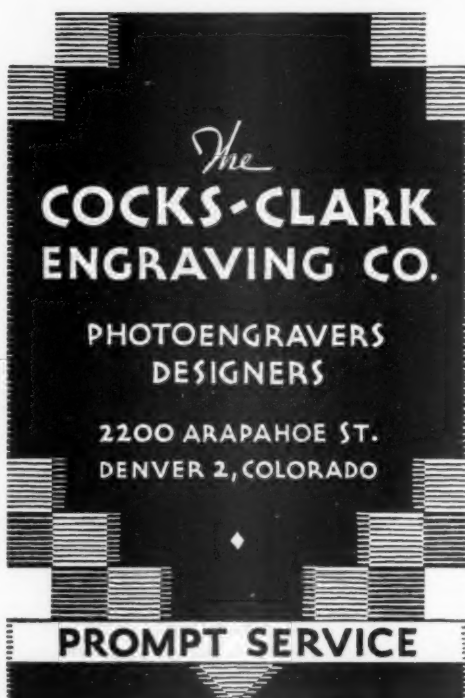
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is required to do so by law or unless it becomes necessary in order to protect the welfare of the individual or of the community.

**"Section 10—**The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society where these responsibilities deserve his interest and participation in activities which have the purpose of improving both the health and the well-being of the individual and the community."

In approving the new Principles of Medical Ethics, the House of Delegates also reaffirmed the "Guides for Conduct of Physicians in Relationships with Institutions," adopted in 1951, and requested the Board of Trustees to devise and initiate a campaign to educate both physicians and the general public to the dangers inherent in the illegal corporate practice of medicine in its various forms.

#### **Guides for Relations With UMWA Fund**

In a key action on the basic issue of third-party intervention, as it affects the patient's free choice of physician and the physician's method of remuneration, the House adopted the "Suggested Guides to Relationships Between State and County Medical Societies and the United Mine Workers of America Welfare and Retirement Fund," which were submitted by the AMA Committee on Medical Care for Industrial Workers. In approving the guides, the House also recommended that the Board of Trustees study the feasibility and possibility of setting up similar guides for relations with other third-party groups such as management and labor union plans.

The statement, which outlines both medical society and UMWA responsibilities, contains these "General Guides":

"1. All persons, including the beneficiaries of a third-party medical program such as the UMWA Fund, should have available to them good medical care and should be free to select their own physicians from among those willing and able to render such service.

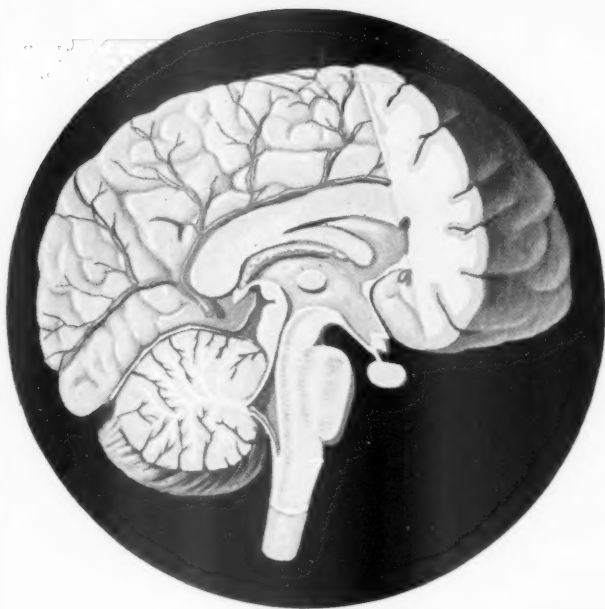
"2. Free choice of physician and hospital by the patient should be preserved:

"a. Every physician duly licensed by the state to practice medicine and surgery should be assumed at the outset to be competent in the field in which he claims to be, unless considered otherwise by his peers.

"b. A physician should accept only such terms or conditions for dispensing his services as will insure his free and complete exercise of independent medical judgment and skill, insure the quality of medical care, and avoid the exploitation of his services for financial profit.

"c. The medical profession does not concede to a third party such as the UMWA Welfare and Retirement Fund in a medical care program the prerogative of passing judgment on the treatment rendered by physicians, including the necessity of hospitalization, length of stay, and the like.

(Continued on page 751)



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Marquis, D. G., Kelly, E. L., Miller, J. G., Gerard, R. W. and Rapoport, A.: *Ann. New York Acad. Sc.* 67:701, May 9, 1957.

2 "Since it [meprobamate—'Miltown'] does not cloud consciousness or lessen intellectual capacity, it can be used . . . even by those busily occupied in intellectual work."

Keyes, B. L.: *Pennsylvania M. J.* 60:177, Feb. 1957.

3 "... the patient never describes himself as feeling detached or 'insulated' by the drug ['Miltown']. He remains completely in control of his faculties, both mental and physical . . ."

Sokoloff, O. J.: *A.M.A. Arch. Dermat. & Syph.* 74:393, Oct. 1956.

4 "It ['Miltown'] . . . does not cloud the sensorium, and has a helpful somnifacient effect devoid of 'hangover'."

Kessler, L. N. and Barnard, R. D.: *M. Times* 84:431, April 1956.

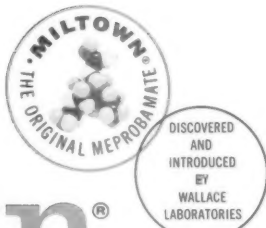
5 "In anxiety and tension states, meprobamate relaxes without dulling cortical function to the same extent as the commonly-used barbiturates."

Rindskopf, W., Ravreby, M., Gutenkauf, C. and Sands, S. L.: *J. Iowa M. Soc.* 47:57, Feb. 1957.

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(Continued from page 748)

"3. A fee-for-service method of payment for physicians should be maintained except under unusual circumstances. These unusual circumstances shall be determined to exist only after a conference of the liaison committee and representatives of the Fund.

"4. The qualifications of physicians to be on the hospital staff and membership on the hospital staffs is to be determined solely by local hospital staffs and by local governing boards of hospitals."

### The Medicare Program

The House considered three resolutions dealing with the federal government's Medicare program for the dependents of servicemen. The delegates adopted one resolution condemning any payments under the Medicare program "to or on behalf of any resident, fellow, intern or other house officer in similar status who is participating in a training program." Government sanction of such payments, the House declared, would give impetus to the improper corporate practice of medicine by hospitals or other non-medical bodies. Such proposals, the House added, would violate traditional patterns of American medical practices, seriously aggravate problems of hospital-physician relationships, encourage charges by hospitals for residents' services to patients not under the Medicare program, and create a variety of additional problems in such areas as medical licensure and health insurance.

In another action on Medicare, the House recommended that the decision on type of contract and whether or not a fee schedule is included in future contract negotiations should be left to individual state determination. In this connection, however, the House restated the AMA contention that: the Dependent Medical Care Act as enacted by Congress does not require fixed fee schedules; the establishment of such schedules would be more expensive than permitting physicians to charge their normal fees, and fixed fee schedules would ultimately disrupt the economics of medical practice.

The House also suggested that the AMA attempt to have existing Medicare regulations amended to incorporate the Association's policy that the practice of anesthesiology, pathology, radiology and physical medicine constitute the practice of medicine, and that fees for services by physicians in these specialties should be paid to the physician rendering the services.

### New Statement on Medical Schools

To replace the "Essentials of an Acceptable Medical School," initially approved by the House of Delegates in 1910 and most recently revised in 1951, the House adopted a new statement entitled "Functions and Structure of a Modern Medical School." Presentation of the document followed a year of careful study by the Council on Medical Education and Hospitals in collabora-

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tion with the Association of American Medical Colleges.

The statement is intended to provide flexible guides which will "assist in attaining medical education of ever higher standards" and "serve as general but not specific criteria in the medical school accreditation program." The document encourages soundly conceived experimentation in medical education, and it discourages excessive concern with standardization.

"No rigid curriculum can be prescribed for accomplishing the objectives of medical education," it states. "On the contrary, it is the responsibility of the faculty of each school continually to re-evaluate its curriculum and to provide in accordance with its own particular setting and in recognition of advances in science a sound and well-integrated educational program."

**Occupational Health Programs**

The House also approved a new statement on the "Scope, Objectives and Functions of Occupational Health Programs," submitted through the Board of Trustees by the Council on Industrial Health. The Board report to the House said: "The statement describes and defines orthodox in-plant medical programs as understood in this country today and distinguishes clearly between such programs and the various plans for comprehensive medical care of the sick. It should help to resolve misunderstandings concerning the specialty of occupational medicine."

In adopting the statement, the House agreed with a reference committee report which declared that "the House has before it a statement which for the first time clearly defines the scope, objectives and functions of occupational health programs. It marks the needs and boundaries of occupational medicine. It states in a positive fashion the proper place of occupational health programs in the practice of medicine and it clearly charts the pathways of communication between physicians in occupational health programs and physicians in the private practice of medicine."

**Social Security for Doctors**

Two resolutions favoring compulsory inclusion of physicians in the federal Social Security system and another one calling for a nationwide referendum of AMA members on the issue were rejected by the House. The delegates reaffirmed their opposition to compulsory coverage of physicians under the Old Age and Survivors Insurance provisions of the Social Security Act. They also recommended a strongly stepped-up informational program of education which will reach every member of the Association, explaining the reasons underlying the position of the House of Delegates on this issue. The House at the same time reaffirmed its support of the Jenkins-Keogh bills.

### Miscellaneous Actions

In considering sixty-six resolutions and many additional reports from the Board of Trustees, councils and committees, the House also:

Congratulated the Board and the Committee on *Poliomyelitis* for their prompt action in stimulating national interest in the polio immunization program;

Recommended further study and a progressive program of action, probably including legislative changes, to solve the problem of *narcotic addiction*;

Urged a more careful screening of television and radio patent medicine *advertisements*;

Directed the Board of Trustees to investigate the indiscriminate use of stimulants such as amphetamine, particularly in relation to athletic programs;

Directed the Speaker to appoint a committee of five House members to study the *Heller Report*, a management survey of the Association's organizational mechanisms;

Commended the Law Department for its special report on *professional liability* and urged state and county medical societies to establish claims prevention programs and to show the new film, "The Doctor Defendant";

Opposed the establishment of any further *veterans'* facilities for the care of non-service-connected illnesses of veterans;

Condemned the compulsory assessment of medical men and staff members by hospitals in *fund-raising campaigns*;

Commended the television program, *Dr. Hudson's Secret Journal*, its producers and its star, Mr. John Howard, for an outstanding contribution to the public interest and welfare, and

Recommended payment of transportation expenses of *Section Secretaries* for AMA meetings which they are required to attend.

### Opening Session

At the Monday opening session Dr. Dwight Murray, retiring AMA President, stressed the triple theme of the personal touch in medicine, the necessity for freedom in medical practice and the need for professional unity. Dr. Allman, then President-elect, warned against the dangers of third-party contractual agreements involving fixed fee schedules. The Goldberger Award in nutrition research was presented to Dr. Paul Gyorgy of Philadelphia. An AMA citation was awarded to the Parke-Davis & Company for its continuing series of institutional advertisements telling the story of medicine and medical progress. Dr. H. G. Weiskotten, who retired after many years as chairman of the Council on Medical Education and Hospitals, received two bound volumes of letters of appreciation and also an ovation from the House of Delegates.

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### Inaugural Ceremony

Dr. Allman, in his Tuesday night inaugural address, declared that the physician is constantly striving for a balance between personal, human values, scientific realities and the inevitabilities of God's will. The inaugural ceremony, which was telecast over Station WABD-TV in New York, included presentation of the Distinguished Service Award to Dr. Spies and the special layman's citation to Mr. Viscardi. Also taking part in the program was the United States Army Chorus of Washington, D. C.

### Election of Officers

In addition to Dr. Gundersen, the new President-elect, the following officers were selected by the House on Thursday;

Dr. Jesse Hamer of Phoenix, Ariz., Vice President; Dr. George F. Lull of Chicago, Secretary; Dr. J. J. Moore of Chicago, Treasurer; Dr. E. Vincent Askey of Los Angeles, Speaker, and Dr. Louis Orr of Orlando, Fla., Vice Speaker.

Four new members were elected to the Board of Trustees: Dr. George Fister of Ogden, Utah, to succeed Dr. James R. Reuling; Dr. Cleon Nafe of Indianapolis, Ind., to succeed Dr. James R. McVay; Dr. James Z. Appel of Lancaster, Pa., to replace the late Dr. Thomas P. Murdock, and Dr.

Raymond McKeown of Coos Bay, Ore., to replace Dr. Gundersen. Dr. Edwin S. Hamilton of Kankakee, Ill., was elected chairman of the Board at its organizational meeting after the elections in the House.

Dr. Homer L. Pearson, Jr., of Coral Gables, Fla., was renamed to the Judicial Council. Two new members were elected to the Council on Medical Education and Hospitals: Dr. Clark Westcott of Lawrence, Kansas, to succeed Dr. Weiskotten, and Dr. Warde B. Allan of Baltimore, Md., to succeed Dr. F. D. Murphy of Lawrence, Kansas.

For the Council on Medical Service, Dr. Robert L. Novy of Detroit, Mich., was re-elected, and Dr. Hoyt Woolley of Idaho Falls, Idaho, was chosen to replace Dr. McKeown. Dr. Warren W. Furey of Chicago was re-elected to the Council on Constitution and By-laws.

At the Wednesday session of the House the Illinois State Medical Society made a record state society contribution to the American Education Foundation by turning over \$170,450 to Dr. Louis H. Bauer of New York, Foundation President.

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## Colorado Obituary

### SAMUEL GOLDHAMMER

Samuel Goldhammer, M.D., died on May 22, 1957, at General Rose Hospital. He was born in New York City on September 13, 1888, and was brought to Denver the following year.

Dr. Goldhammer studied medicine in Denver and Vienna and received his M.D. degree at Gross Medical School, Denver, in 1910. During World War I he served as a Captain in the Army Medical Corps. He was a Denver police surgeon for many years and served on the faculty of the University of Colorado Medical School. During more recent years he confined his practice to Ophthalmology.

In 1940 he married Frances Ruth Nelson. He was a former President of the Colorado Ophthalmological Society and a member of the Denver Medical Society and the Colorado State Medical Society. He was a member of Columbine Masonic Lodge No. 147 and a former member of the Rocky Mountain Consistory 32nd degree Masons.

Survivors include his wife, three children, Joann 15, Philip 14, and Nelson 11; three brothers, Abe, Morris and Henry, all of Denver, and two sisters, Mrs. Lillian Hollender, Denver, and Mrs. Helen Nasatir, Los Angeles, California.

### PROGRAM

#### Of the Nineteenth Midsummer Radiological Conference of the ROCKY MOUNTAIN RADIOLOGICAL SOCIETY

August 15, 16 and 17  
Shirley-Savoy Hotel, Denver

#### GUEST SPEAKERS

(In order of appearance)

Benjamin H. Orndoff, M.D.  
Paul C. Abersold, Ph.D.  
Titus C. Evans, Ph.D.  
Harry M. Spence, M.D.  
Russell H. Morgan, M.D.  
Henry L. Jaffe, M.D.

#### THURSDAY MORNING, AUGUST 15

9:00-10:45—Registration.

10:45-11:20—Addresses of Welcome: Rocky Mountain Radiological Society, John S. Bouslog, M.D., Denver, Colorado, President; The Radiological Society of North America, C. Edgar Virden, M.D., Kansas City, Missouri, President; The Colorado State Medical Society, George R. Buck, M.D., Denver, Colorado, President; Denver Medical Society, Irvin E. Hendryson, M.D., Denver, Colorado, President; Colorado Radiological Society, Gerald S. Maresh, M.D., Denver, Colorado, President; American College of Radiology, Ira H. Lockwood, M.D., Kansas City, Missouri, President.

11:20-11:40—"History of the American College of Radiology." Benjamin H. Orndoff, M.D., Chicago, Illinois.

11:40-12:00—"Principles of Radiologic Practice—American College of Radiology." Kenneth D. A. Allen, M.D., Denver, Colorado, Member of Executive Committee.

12:00-1:10—Luncheon—Informal Meeting with Guest Speakers.

#### THURSDAY AFTERNOON, AUGUST 15

Grant P. Raitt, M.D., First Vice President, Rocky Mountain Radiological Society, Presiding.

1:10-1:40—Outlook and Current Research in Cardiovascular Radiology. Charles T. Dotter, M.D., Portland, Oregon.

1:40-2:00—"Peripheral Arteriography." R. E. Collier, M.D., and A. D. Sears, M.D., Dallas, Texas.

2:00-2:40—"Considerations in Revised Radiation Protection Standards." Paul C. Abersold, Ph.D., Oak Ridge, Tennessee.

2:40-3:00—"Roentgenography of the Breast." J. Gershon-Cohen, M.D., Victor Kremens, M.D., and Simon M. Berger, M.D., Philadelphia, Pennsylvania.

3:00-3:45—Visit the Exhibits.

3:45-4:15—"Cholecystography and Cholangiography. Technics and Diagnostic Results." Hilliar L. Baker, Jr., M.D., and John R. Hodgson, M.D., Rochester, Minnesota.

4:15-4:35—"Practical Applications of Rotation, Pendulation, and Multiportal Irradiation Therapy Planning and Application by Means of a Rotational Cobalt Unit." John T. Mallams, M.D., and J. E. Miller, M.D., Dallas, Texas.

4:35-4:55—"Unusual Roentgen Manifestations of Ileocecal Pathology, Including the Appendix." Leo S. Figiel, M.D., and Steven J. Figiel, M.D., Detroit, Michigan.

4:55—Executive Session.

#### THURSDAY EVENING, AUGUST 15

6:00—Guest Speakers' Dinner—Informal. All members, visiting radiologists and wives invited. Shirley-Savoy Hotel.

8:00—Joint Meeting with the Denver Medical Society. Irvin E. Hendryson, M.D., President, Denver Medical Society.

John S. Bouslog, M.D., President, Rocky Mountain Radiological Society, Presiding.  
Seminar: Guest speakers to participate in round table discussion of interesting diagnostic cases.

#### **FRIDAY MORNING, AUGUST 16**

Albert G. Barsh, M.D., Second Vice President, Lubbock, Texas, Presiding.

**9:00-9:20**—"Dacryocystography." Benjamin Milder, M.D., St. Louis, Missouri.

**9:20-10:00**—"Radioiodine in the Diagnosis of Thyroid Carcinoma." Titus C. Evans, Ph.D., Iowa City, Iowa.

**10:00-10:30**—"Retrograde Aortography." Sidney W. Nelson, M.D., Columbus, Ohio.

**10:30-10:50**—"Radioactive Rose Bengal in the Study of Liver Disease." Kenneth D. A. Allen, M.D., Robert W. Lackey, M.D., and Garret B. Byma, M.D., Denver, Colorado.

**10:50-11:20**—Visit the Exhibits.

**11:20-12:00**—"Congenital Anomalies to the Upper Urinary Tract." Harry M. Spence, M.D., Dallas, Texas.

**12:00-1:30**—Noon Day Luncheon with the Guest Speakers.

#### **FRIDAY AFTERNOON, AUGUST 16**

Peter E. Russo, M.D., Oklahoma City, Oklahoma, Presiding.

**1:30-2:00**—"Hereditary Degenerative Osteoarthritis." William H. Christensen, M.D., Salt Lake City, Utah.

**2:00-2:40**—"Screen Intensification—Part I." Russell H. Morgan, M.D., Baltimore, Maryland.

**2:40-3:00**—"Annular Pancreas." Ralph R. Meyer, M.D., Salt Lake City, Utah.

**3:00-3:40**—Visit the Exhibits.

**3:40-4:20**—"Indications for Newer Types of Radiation Therapy for Ovarian Cancer." Henry L. Jaffe, M.D., Los Angeles, California.

**4:20-5:00**—"Recent Developments in Radioisotopes Diagnostic Technics." Paul C. Abersold, Ph.D., Oak Ridge, Tennessee.

**5:00**—Executive Session.

#### **FRIDAY EVENING, AUGUST 16**

**6:00**—Social Hour—Shirley-Savoy Hotel.

**7:00**—Banquet—Informal.

#### **SATURDAY MORNING, AUGUST 17**

Angus K. Wilson, M.D., President, Rocky Mountain Radiological Society, Salt Lake City, Presiding.

**9:00-9:40**—"The Combined Treatment of Advanced Prostatic Cancer by Interstitial Radioisotopes and the Cobalt Bomb." Henry L. Jaffe, M.D., Los Angeles, California.

**9:40-10:20**—"Screen Intensification—Part II." Russell H. Morgan, M.D., Baltimore, Maryland.

**10:20-10:50**—Visit the Exhibits.

**10:50-11:30**—"Radiation Biology of Interest to the Radiologist." Titus C. Evans, Ph.D., Iowa City, Iowa.

**11:30-12:10**—"Kidney Tumors: Types, Diagnosis, Treatment." Harry M. Spence, M.D., Dallas, Texas.

**12:10**—Luncheon with the Guest Speakers.

#### **SATURDAY EVENING, AUGUST 17**

Trip to Central City.

**6:00**—Dinner at the Teller House.

**8:15**—Play at the Central City Opera House.

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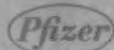
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## Utah



### News Briefs

Mrs. Anthony J. Lund of Ogden was installed as President of the Woman's Auxiliary to the Utah State Medical Association at a recent luncheon. Other officers of the organization are Mrs. David B. Gottfredson, President-Elect; Mrs. George Gasser, Logan, First Vice President; Mrs. L. S. Merrill, Hiawatha, Second Vice President; Mrs. Stanley M. Clark, Jr., Provo, Recording Secretary; Mrs. Grant F. Kearns, Ogden, Corresponding Secretary; Mrs. Neil Huckelberry, Salt Lake City, Treasurer; Mrs. J. Victor Stevenson, Salt Lake City, Assistant Treasurer; Mrs. Donald E. Smith, Auditor, and Mrs. Reed Farnsworth, Cedar City, Historian.

Mrs. Lund has served the state group as President-Elect during the past year. Previously she has served on the Board as courtesy chairman and as a representative from the Weber County Auxiliary. She also served the Weber Auxiliary as President in 1952-53.

John H. Rupper, Provo, was recently elected President of the Utah Heart Association at their annual meeting in Salt Lake City. Dr. Merrill C. Daines was elected a Vice President, and also chosen a member of the Association's Executive Committee.

The 20th annual meeting of the Utah Public Health Association was held recently in the Union Building on the University of Utah campus. John W. Knutson, President of the American Public Health Association, and Assistant Surgeon General, U. S. Public Health Service, spoke on "Public Health Workers Organize for the Future." Other speakers during the two-day sessions were William C. Gibson, Professor of Public

Health Engineering, University of Michigan School of Public Health, and Miss Dorine Losa, Mental Health Nursing Consultant, Public Health Service, Region 8.

C. Ray Openshaw, Jr., Executive Secretary, State Business Regulation Department, has made an appeal to doctors and druggists to contact his agency if they are contacted by clients or patients who appear to be drug addicts. Names, aliases and photographs of thirty-five known narcotics addicts are being sent to doctors and druggists in a cooperative effort to cut down illegal narcotics sales.

### Obituary

#### ROBERT S. ALLISON

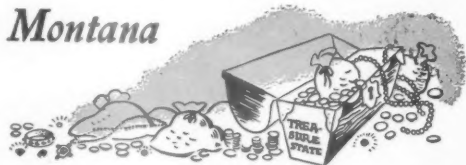
Dr. Robert Seaman Allison, prominent physician and surgeon, died May 21 of causes due to cardiac failure.

Dr. Allison was a graduate of Grinnell College of Iowa and Rush Medical College of the University of Chicago. He was Chief Surgeon for the Utah Fuel Company and Assistant Chief Surgeon for the Denver & Rio Grande Western and Western Pacific Railroads.

He was a member of the American College of Surgeons.

Surviving besides his widow are two daughters and a son.

## Montana



### Obituaries

#### A. D. BREWER

Albert David Brewer, M.D., died at his home in Kalispell early in May. Dr. Brewer was born in Columbia, South Carolina. He received his Master of Arts degree from the University of Nebraska in 1898 and his M.D. degree from Harvard Medical School in 1901. He was licensed to practice in Montana during 1905. After a number of years of general practice in eastern Montana, Dr. Brewer became interested in public health. He was one of the first full-time Public Health

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Officers in Montana and served as the Health Officer of Gallatin County for a number of years.

Dr. Brewer had been an active member of this Association and the American Medical Association until his retirement. He retired in 1948 and moved to the Flathead Lake area where he lived until his death.

#### H. L. CASEBEER

Harvey Lee Casebeer, M.D., Butte, was killed in an automobile accident on April 27. Dr. Casebeer was born May 1, 1907, in York, Nebraska. He received his A.B. degree from York College in 1929 and his M.D. degree from the University of Nebraska College of Medicine in 1933. Dr. Casebeer had limited his practice to O.A.L.R. since he was licensed to practice in this state in 1936.

Dr. Casebeer was an organizer of the Flying Physicians of America, a national organization of nearly 1,000 physicians interested in private aviation. He served as a regional representative to the Civil Aeronautics Administration and held numerous offices in the Montana Aeronautics Commission, the Montana Civil Air Patrol and the Montana Pilots' Association. He was a Past President of the Butte Chamber of Commerce, the Silver Bow County Medical Society, the Montana Academy of Oto-Ophthalmology, and served as Vice President of this Association in 1954-55.

#### J. M. FLINN

James Michael Flinn, M.D., Helena, died suddenly May 6, 1957, in a Great Falls hospital where he had undergone surgery following an accidental fall down a flight of steps at the home of a patient. Dr. Flinn was born on November 18, 1891, in Helena. He received his M.D. degree from St. Louis University School of Medicine in 1921 and shortly thereafter began the general practice of medicine in his home town.

Dr. Flinn was extremely active in the affairs of this Association and in Catholic churches and schools. He served as President of this Association in 1952-53 and was President of the Public Health League of Montana from 1948 until his death. He served as a consultant to the State Department of Public Welfare and as Montana Chairman of the Advisory Committee to the Selective Service System for many years. Dr. Flinn was awarded a papal medal struck in honor of Pope Pius X for his achievements during a campaign to raise more than one million dollars to enlarge Carroll College in Helena. During 1955 Dr. Flinn and his wife had an audience with Pope Pius XII in Vatican City. He had many business interests and was an ardent and accomplished musician. Dr. Flinn was truly charitable and, unbeknownst to many of his closest friends, assisted many young men and women financially in completing their college education.

(Continued from page 727)

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## The Washington Scene



*A monthly news summary from the nation's capital by the Washington Office of the A.M.A.*

The 85th Congress is in the final few weeks of its first session with prospects that it will enact few major medical bills this year, but that next year will be a different story. On at least half a dozen important measures action has been postponed, with the understanding that the issues will be fought out in 1958.

Circumstances prevented any delay on one bill that is of considerable importance to the younger doctors—a new version of the doctor draft act. It had to be enacted by July 1, the Defense Department insisted, or not enough doctors would be available to maintain the military medical services at an acceptable level.

The problem is that the Armed Forces require a higher ratio of physicians to troops than exists between physicians and the general population. Without some special law, the services would either have to make out with fewer doctors than they say they need, or draft thousands of non-physicians merely to obtain the doctors who are in the particular age groups.

This scheme was devised: Amendment of the regular draft act to allow the call up, to age 35, of the necessary number of doctors from among those who had received educational deferments; they could be called because they are physicians, not because they are of a certain age. Also, the national, state and local Medical Advisory Committees of Selective Service would be continued, as would a number of provisions in the original act that protect the rights of drafted doctors.

As Congress moved toward adjournment, prospects also were that it would enact a bill to help out some states caught in a financial squeeze because of a new act, passed last year but not scheduled to go into effect until July 1, 1957, to increase federal payments for the medical care of persons on the state-federal public assistance rolls.

Under the old system, states could use the U. S. dollars to pay directly to the individuals for their medical care, or directly to the vendors of medical service—hospitals, physicians, dentists. Many states, adopting the second plan in all or part of their counties, used the federal money to help maintain pooled funds, which support various medical care programs.

All U. S. money paid out under the new act must be used in the form of vendor payments—that is, not turned over directly to the public assistance cases. At the same time, the law as

originally passed stipulated that any money received under the old plan henceforth would have to be handled as “recipient payments,” that is going directly to the persons on public assistance rolls.

A number of states thus faced the prospects of drastically revising their carefully-established medical care programs or sacrificing large amounts of federal money. Congress came to their rescue by means of a bill that would allow them to use the old money as before, yet take full advantage of the new federal program.

In the closing weeks of the session, however, two major medical bills were making little, if any, progress—those for federal grants to medical colleges to build teaching facilities and for initiating a program of health insurance for federal civilian employees.

A number of bills had been introduced on aid to medical education, representing virtually all the viewpoints in Congress and the administration, but nothing much was happening. Here one factor was the economy drive, which was not too successful in cutting the administration's health budget, yet which virtually precluded any new programs involving large appropriations.

On federal employee health insurance, these long-standing differences of opinion still blocked any compromise: Should emphasis be on basic health insurance, or on major medical (catastrophic) coverage? Should U. S. payroll deductions be permitted, or would this open the door to demands for many other payroll deductions, such as for union dues? What safeguards could be set up to prevent either the commercial insurance companies or the nonprofit organizations (union plans and Blue Cross-Shield) from gaining a dominant position?

On these two major bills—as well as on many others, sponsors were not too discouraged. Already they were making plans to press them still more vigorously next year when Congress, looking toward the fall elections, may be more responsive.

\* \* \*

### Notes:

Doctors are asked by PHS to be on the alert for a new type A influenza strain expected to work its way into this country from the Far East. Details from state health departments.

\* \* \*

National Library of Medicine officials were still hopeful, as the end of the session neared, that Congress would vote enough money to start constructing the library's new building next year.

\* \* \*

For the first time the U. S. contribution to WHO this year is expected to drop to a third of the total WHO budget. In dollars, however, the U. S. share continues to go up, as the charges to other countries.

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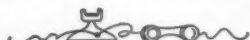
#### PROFESSIONAL LIABILITY FILM AVAILABLE IN JULY

A new dramatic film pointing up ways of preventing professional liability claims and suits is now available for medical society meetings. This new film titled, "The Doctor Defendant," is the second in a series of films on various medicolegal problems being produced by the Wm. S. Merrill Pharmaceutical Company in cooperation with the American Medical Association and the American Bar Association. Bookings may be arranged through AMA's Film Library. It was shown for the first time Wednesday, June 5, during the AMA's annual meeting in New York City.

#### HEALTH NOTES—

Disorders of the heart, blood vessels and related organs caused over 850,000 deaths last year—more than half the total number of deaths in this country, Health Information Foundation reports.

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## The Colorado State Medical Society Annual Session; September 24-27, Denver

### OFFICERS—1956-1957

Terms of Officers and Committeemen expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** George R. Buck, Denver.

**President-Elect:** Gatewood C. Milligan, Englewood.

**Vice President:** C. Walter Metz, Denver.

**Constitutional Secretary** (three years): James M. Perkins, Denver, 1957.

**Treasurer** (three years): William C. Service, Colorado Springs, 1959.

**Additional Trustees** (three years): Lawrence D. Buchanan, Wray, 1957; Ray G. Witham, Craig, (to fill vacancy) 1957; Terry J. Gromer, Denver, 1958; Bernard T. Daniels, Denver, 1959.

(The above nine officers compose the Board of Trustees of which Dr. Buck is Chairman and Dr. Metz is Vice Chairman for the 1956-1957 year.)

**Board of Councilors** (three years): District No. 1: Osgood S. Philpott, Denver, 1957; District No. 2: Roger G. Howlett, Golden, 1959; District No. 3: Harry C. Bryan, Colorado Springs, 1958; District No. 4: Paul R. Hildebrand, Brush, 1957; District No. 5: John D. Gillaspie, Boulder, 1957; Vice Chairman; District No. 6: Harvey M. Tupper, Grand Junction, 1958; District No. 7: Charles L. Mason, Durango, 1958; District No. 8: Herman W. Roth, Chairman, Monte Vista, 1959; District No. 9: Scott A. Gale, Pueblo, 1959.

**Grievance Committee** (formerly the Board of Supervisors) (two years): Dune F. Harshorn, Chairman, Ft. Collins, 1957; Kenneth H. Beebe, Vice Chairman, Sterling, 1957; Freeman H. Longwell, Secretary, Denver, 1958; Lawrence W. Holden, Boulder, 1957; Robert C. Lewis, Jr., Glenwood Springs, 1957; James S. Orr, Fruita, 1957; Gordon H. Vandiver, La Junta, 1958; Robert H. Smith, Colorado Springs, 1958; George G. Balderston, Montrose, 1958; Ligon Price, Mt. Harris, 1958; Walter M. Boyd, Greeley, 1958; William N. Baker, Pueblo, 1957.

**Delegates to American Medical Association** (two calendar years): E. H. Munro, Grand Junction, 1957; (Alternate, Harlan E. McClure, Lamar, 1957); Kenneth C. Sawyer, Denver, 1958; (Alternate, Irvin E. Hendryson, Denver, 1958).

**Speaker, House of Delegates:** Carl W. Swartz, Pueblo; **Vice Speaker:** Frank B. McGlone, Denver.

**Foundation Advocate:** Walter W. King, Denver.

**Executive Office Staff:** Mr. Harvey T. Sethman, Executive Secretary; Mr. John W. Pompeii, Assistant Executive Secretary; Mrs. Geraldine A. Blackburn, Executive Assistant; 835 Republic Building, Denver 2, Colorado; Telephone AComa 2-0547.

**General Counsel:** Mr. J. Peter Nordlund, Attorney-at-Law, Denver.

## The Wyoming State Medical Society

### OFFICERS—1957-1958

**President:** H. B. Anderson, Casper.

**President-Elect:** L. Harmon Willmoth, Lander.

**Vice President:** Benjamin Giltz, Thermopolis.

**Secretary:** Francis A. Barrett, Cheyenne.

**Treasurer:** C. D. Anton, Sheridan.

**Delegate to A.M.A.:** A. T. Sudman, Green River.

**Alternate Delegate, A.M.A.:** B. J. Sullivan, Laramie.

**Executive Secretary:** Mr. Arthur R. Abbey, Cheyenne.

## Montana Medical Association

### Annual Meeting; September 19-21, Missoula

#### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** Edward S. Murphy, Missoula.

**President-Elect:** John A. Layne, Great Falls.

**Vice President:** Herbert E. Caraway, Billings.

**Secretary-Treasurer:** Theodore R. Vye, Billings.

**Assistant Secretary-Treasurer:** Park W. Willis, Jr., Hamilton.

**Executive Committee:** Edward S. Murphy, Missoula, Chairman; John A. Layne, Great Falls; Herbert E. Caraway, Billings; Theodore R. Vye, Billings; Park W. Willis, Jr., Hamilton; George W. Setzer, Malta; John J. Malee, Anaconda.

**Executive Secretary:** Mr. L. R. Hegland, P. O. Box 1692, Office Telephone 9-2585, Billings.

**Delegate to American Medical Association:** Raymond F. Peterson, Butte; alternate, Paul J. Gans, Lewistown.

## The Utah State Medical Association

### Annual Session; September 5-7; Salt Lake City

#### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** James Z. Davis, M.D., Salt Lake.

**President-Elect:** Reed W. Farnsworth, M.D., Cedar City.

**Past President:** R. O. Porter, M.D., Logan.

**Honorary President:** C. N. Ray, M.D., Salt Lake.

**Secretary:** J. Poulsen Hunter, M.D., Salt Lake.

**Executive Secretary:** Mr. Harold Bowman, Salt Lake.

**Treasurer:** Alan P. Macfarlane, M.D., Salt Lake.

**Councillor, Box Elder Medical Society:** J. H. Hammussen, M.D., Brigham City.

**Councillor, Cache Valley Medical Society:** C. C. Randall, M.D., Logan.

**Councillor, Carbon County Medical Society:** L. H. Merrill, M.D., Hiawatha.

**Councillor, Central Utah Medical Society:**

**Councillor, Salt Lake County Medical Society:** James F. Orme, M.D., Salt Lake.

**Councillor, Southern Utah Medical Society:**

**Councillor, Uintah Basin Medical Society:** T. R. Sager, M.D., Vernal.

**Councillor, Utah County Medical Society:**

**Councillor, Weber County Medical Society:** I. B. McQuarrie, Ogden.

**Delegate to the A.M.A., 1955-57:** George M. Flister, M.D., Ogden.

**Alternate:** Elliot Snow, M.D., Salt Lake City.

**Editor of the Utah Section of the Rocky Mountain Medical Journal:**

R. F. Middleton, M.D., Salt Lake.

## New Mexico Medical Society

### OFFICERS—1957-1958

Terms of Officers expire at the Annual Session in the year indicated. Where no year or term is indicated, the term is for one year only and expires at the 1958 Annual Session.

**President:** Samuel R. Ziegler, Espanola.

**President-Elect:** James C. Sedgwick, Las Cruces.

**Vice President:** Lewis M. Overton, Albuquerque.

**Secretary-Treasurer:** Omar Legant, Albuquerque.

**Executive Secretary:** Mr. Ralph R. Marshall, 302 First National Bank Building, Albuquerque; telephone 2-2102.

**Immediate Past President:** Stuart W. Adler, Albuquerque.

**Councillors** (three years): W. O. Connor, Jr., Albuquerque, 1958; L. L. Daviet, Las Cruces, 1958; Aaron Marquis, Santa Fe, 1959; Julius A. Evans, Las Vegas, 1959; Gerald Slusser, Artesia, 1960; George Prothro, Clovis, 1960; Wendell Peacock Farmington, 1960.

**Delegate to American Medical Association** (two years): H. L. January, Albuquerque, 1958; alternate, Earl L. Malone, Roswell, 1958.

**Grievance Committee:** Louis Levin, Belen, Chairman, 1958; Jack Dillahun, Albuquerque, Secretary-Treasurer, 1958; A. D. Maddox, Las Cruces, 1958; O. A. Slusser, Artesia, 1958; William Hensley, Deming, 1960; Pierre Salmon, Roswell, 1960; Alfred Jensen, Hobbs, 1959; James McCrory, Santa Fe, 1959; William Natoli, Los Alamos, 1958.

**New Mexico Physicians Service:** Wendell Peacock, Farmington, President, 1958; H. M. Mortimer, Las Vegas, 1960; R. P. Bendette, Raton, 1958; R. V. Seligman, Albuquerque, 1958; Omar Legant, Albuquerque, 1958; Allen Haynes, Clovis, 1959; W. L. Minton, Lovington, 1959; J. P. Turner, Carriazo, 1959; U. S. Marshall, Roswell, 1959; J. W. Hillsman, Carlsbad, 1959; Angus McKinnon, Albuquerque, 1960; James Wiggins, Albuquerque, 1960; Andrew Rahey, Las Cruces, 1960; John Abrams, Albuquerque, 1960; Executive Director, Mr. L. J. LeGrave, 212 Insurance Building, Albuquerque, Phone 3-3188.

## Colorado Hospital Association

### OFFICERS, 1956-1957

**President:** Robert A. Pontow, Colorado General Hospital, Denver.

**President-Elect:** Roy Prangely, St. Luke's Hospital, Denver.

**Vice President:** Msgr. John E. Mulroy, Catholic Hospitals, Denver.

**Treasurer:** Walter Dubach, Children's Hospital, Denver.

**Trustees:** Harry Clark (1957), Southwest Memorial Hospital, Cortez; Elton A. Reese (1957), Alamosa Community Hospital, Alamosa; Roy Anderson (1957), Presbyterian Hospital, Denver; C. Franklin Flinden (1958), Memorial Hospital, Colorado Springs; Lewis Llewellyn (1958), National Jewish Hospital, Denver; Milton Speicher (1958), Wray Community Hospital, Wray; John Peterson (1959), Larimer County Hospital, Fort Collins; Hubert Hughes (1959), General Rose Hospital, Denver; Jacob Horowitz (1959), Denver General Hospital, Denver.

**Blue Cross Representative on Board of Trustees:** Glenn Saunders, Denver.

**Delegate to the American Hospital Association:** H. E. Bles, Porter Sanitarium and Hospital, Denver; Alternate Delegate: H. H. Hill, Weld County Hospital, Greeley.



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**WANTED—E.N.T. Physician,** Board Certified, to become partner in present partnership of seven-man group. Partnership owns own building through closed corporation. Excellent school system and accredited hospital. Upper midwest city of 7,000, 100 miles from metropolitan centers. Carroll Medical Center, Carroll, Iowa. 72-3

**DESIRE ASSOCIATION** with established surgeon or small group. Will complete fourth year of Board approved residency in general surgery January, 1958. Have completed military service. Married with family. Please reply to Box 7-1, Rocky Mountain Medical Journal, 835 Republic Building, Denver 2, Colorado.

**NEEDED:** A general practitioner to practice as a full partner in a currently three-man group. Location—Delta County. Agricultural area with some industry. Contact North Fork Medical Clinic, Paonia, Colorado. 71

**BOULDER, COLORADO—**Nineteen hundred square feet of suitable office space, ground floor, centrally located on bus line. Adequate for two or three doctors. Radiologist in building. Parking, utilities, janitor service furnished. Jack Lutz, 2120 Broadway, Boulder, Colorado. 72

**OPHTHALMOLOGY** opening in Denver. Forty-three year old solo practice available because of death. Take over active practice. Office and equipment optional. Fred Kal, ALpine 5-3618, or write 1206 Mile High Center, Denver, Colorado. 73

**GENERAL PRACTITIONER** urgently desires associate. 12 years' experience in growing Denver suburban area. Clinic building with ample examination facilities and diagnostic equipment. Write Box 73-4, 835 Republic Building, Denver 2, Colorado.

**FOR SALE—Medical instruments and equipment.** Doctor, retired, selling all or part at half price. Telephone EAst 2-8518. 74

**GENERAL PRACTITIONER** with an interest or special training in Ophthalmology. Excellent opportunity to work into a large and well established practice. Write James M. Lamme, Jr., M.D., 104 East 7th Street, Walsenburg, Colorado. 75

**SMALL COMMUNITY,** population 2,400, with excellent fishing and hunting, desires physician. Clinic building equipped with x-ray available at no charge. New hospital facilities 30 miles distant. Established schools and churches. All weather highways. For further information write Upper Eagle River Communities Medical Clinic, Inc., P.O. Box 156, Minturn, Colorado. 76

**PHYSICIAN** completing residency in July desires locum tenens through August. Northern Colorado community preferred. Write Box 62-2, 835 Republic Bldg., Denver 2.

**WANTED—Well-qualified General Practitioner** immediately for town of 1,000, N.E. Wyoming, drawing area of 2,500. New modern clinic, reasonable rent or buy, available housing facilities. New modern hospital available 28 miles. Box 468, Upton, Wyoming. 444

**FOR SALE—Equipment** from Dr. F. V. Vesely estate, Lewellen, Nebraska. EKG # EK-2 Burdick; Ultrasonic Megason and Table, Birtcher Model U-105, both like new. BMR #186 McKesson; Microscope #33 MH, Spencer-Buffalo; Centrifuge, Jr., Clay-Adams; Biophoto-electric Colorimeter, Hellige-Diller; Exam. Tables, wood and metal; 2-instrument cabinets, sterilizer, miscellaneous instruments. Reasonably priced. I. E. Tilgner, Lewellen, Nebraska, or Marion Padboy, 2868 Fairfax, Denver 7, Colo., FLorida 5-1942. 612

**GENERAL SURGEON—38;** Board certified; university trained; fifteen months' private practice, then four years in service as deputy chief and chief, surgical services; teaching experience; Colorado license; desires clinic, group, or partnership association. Box 44-2, Republic Bldg., Denver 2, Colorado.

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# EDITORIALS

"GRIEVANCES" are usually misunderstandings with no intent or thought to hurt or annoy another party, but rather a lack of thought and attention to minor or trivial details. State Grievance

## Grievances

Committees have noted that the majority of cases that come to their attention are due entirely to misunderstanding—often because the busy physician fails to take a few additional moments to explain "why," "how much," and "what" to expect, or a patient has failed to ask. Most of these cases have no serious consequences.

There is a much smaller percentage, however, where a complaint seems justified. One such situation that came to recent attention is failure to have proper coverage for a practice when a doctor is out of town or taking an afternoon off. From a public relations standpoint, the cry, "I couldn't get a doctor," "I couldn't find my doctor," or "My doctor was gone, and I didn't know whom to call," is one of the fastest and surest ways to bring down public censure on our already bruised heads.

Medical meetings, vacations, or an evening out or afternoon off and away from the devilish torment of a jangling telephone are necessary for every doctor; but when Johnny breaks his arm, sister swallows a pin, or grandpa has a heart attack, this necessity doesn't loom very large in John Q. Public's mind. He's just disturbed and resentful that "his" doctor, or some doctor, was not immediately available.

Usually this problem arises only because the absent doctor has failed to arrange for telephone answering service or for having a colleague available to take all calls. This can be done whether you are in a small town or a big city. It is good business, good ethics, and good public relations!

W. M. Boyd, M.D.

THE Ninth Rocky Mountain Medical Conference followed the Fifty-fourth Annual Meeting of the Wyoming State Medical Society at Jackson Lake Lodge, Moran,

## Rocky Mountain Medical Conference In Retrospect

Wyoming, in June. Doctors and families from every direction migrated to the magnificent northwest corner of the Yellowstone State to attend these meetings June 15 to 19. Official registration at the Conference included the following M.D.'s: Wyoming, 95; Colorado, 103; New Mexico, 25; Montana, 15; Utah, 44; California, 10; other states, 34—total, 326. In addition there were 65 technical exhibitors who, plus doctors' families, brought the total number of persons to over 700.

Despite competition of incomparable scenery, the wonders of Yellowstone Park, the ski lift at Jackson, boating, fishing in lake and stream, and de luxe relaxing in the Lodge, attendance at each scientific session exceeded 200. Top quality of the program—organizational and political, as well as scientific fare—accounted for the consistent interest. Distinguished speakers, all guests, were enthusiastically heralded; the doctors particularly appreciated the visit and talk of Dwight H. Murray, immediate past president of the A.M.A. Their papers will provide exceptionally fine copy for issues of this Journal during the coming year.

Evening social functions were enjoyed by all—three splendid buffet dinners, one at Jackson Lake Lodge, a second at the Wort Hotel in Jackson, and an outdoor barbeque by the Lodge. Many well-traveled guests stated they had never partaken of a more colorful and tasty spread anywhere on earth than at the small but lusty Wort. We are grateful to the managements of these hostleries and, of course, to the hard working committeemen of the host state.

The Conference was fortunate in having

its founders present, three grand old timers—Drs. George P. Lingenfelter of Denver, Earl Whedon of Sheridan, and Claude Shields of Salt Lake City. It would not be fair to omit recognition, too, of the work of Harvey Sethman, Colorado's intrepid Executive Secretary, in the founding of this organization. Though conceived in 1935, its first meeting was in Denver in 1937. It then followed biennially in Salt Lake City and Yellowstone Park; 1943 and 1945 were missed because of the war; it then went in the following order to Albuquerque, Butte, Denver, Salt Lake City and again Albuquerque, prior to this year at Jackson Lake. Montana will probably be our host in 1959, at Glacier National Park if appropriate accommodations are available, otherwise perhaps back to Jackson Hole country. Whatever works out, we like these truly western meetings for ourselves and our guests!

**E**DITORIAL comment upon the case of Dr. Joseph Kris and his bill for \$1500, for his part in saving the life of Benny Hooper, was in the making when the Rocky Mountain News did it for

### *The Morality of Equitable Fees!*

us. On June 23, under the title "Censure Deserved," the News did a good job of praising the A.M.A. for acting promptly in censuring Dr. Kris, the only one to submit a bill among some 200 who had volunteered to help in the rescue. It is not so much the fact that he sent a bill that hurts, but the fee was exorbitant and he submitted it without previous discussion with the family! This and other journals have repeatedly urged physicians to *offer and encourage discussion of fees*, in advance of service when possible, but always and most especially in unusual and extreme cases, of which this one is a good example. We grant that no one can put price tags on health and preservation of life. Our first duty is to preserve the life and health of all who need our services, but *never* to impose avoidable financial hardship. Furthermore, to appear as an opportunist taking advantage of real or alleged financial resources engenders public censure and suspicion that the vast majority of his colleagues do not deserve.

We appreciate the Rocky Mountain News coming to our rescue: "We strongly share Dr. Hamilton's views. Both professionally and personally the Rocky Mountain News has known scores of doctors over a period of many years. There is not a single one of them who, in our judgment, would have submitted a bill in the manner of Dr. Kris." The editorial went on to comment upon the favorable and generous services of physicians and surgeons in behalf of the sick and poor of this region "acting in the noblest tradition of medicine" and requiring only that they be given no public recognition. Furthermore, it said, "The experience of the Mayfield Foundation is repeated many times every day in every hospital of this city."

We hope that many newspapers in the country may be as generous and understanding, while fearing that many will not. Too often is a great profession misjudged by the action of one or a few of its members. Physicians are in a peculiar position morally, financially, and tax-wise. Our professional behavior should always be in the noblest tradition with integrity beyond reproach. Again, let us refer back to another of our recent editorials, "Certainly, Let's Talk About Fees." And let's bring it up *first*, with amicable understanding, and never last—to the sorrow, regret, and disappointment of our fellow men.

**B**EFORE this issue reaches readers, newspapers and the Journal A.M.A. will have told the detailed story about a most important administrative change at A.M.A.

### *Changing The Guard*

Headquarters—Dr. George F. Lull now to be "Assistant to the President" while retaining the elective Secretaryship, Dr. F. J. L. ("Bing") Blasingame of Texas to assume the position of General Manager.

None of us can view an important "changing of the guard" without mixed emotions, but to both of these fine gentlemen and loyal workers for medicine, our Very Best!

# ARTICLES

## The Role of Physicians and Hospitals in Adoptions in the United States\*

Samuel Karelitz, M.D.  
NEW YORK CITY, NEW YORK

*The intricacies of adoption procedures clearly explained with emphasis on the importance of social agencies involved. Also, warnings about the dangers inherent in the physician playing a lone role as benefactor in adoptions without the use of social agencies.*

ADOPTION concerns the child, the natural parents, the adoptive parents and the community but it is generally acknowledged that adoption is centered about the child and that the interest of the child is the primary concern of adoption. The happiness of the orphaned, abandoned or voluntarily surrendered child who is being considered for adoption is completely dependent on the family in which he is placed. The adopted child will attain his maximum potential only if he gets the security and affection of a family which will supply his needs in a continuing relationship. The fulfillment of these conditions requires careful evaluation of the child, of his natural heritage and of his adoptive family.

### Natural Parents

The problems of the natural parents who offer their child for adoption are grave and numerous. The decision to give up their child may or may not be the best solution of their problems. These parents must be given the opportunity to reach a

decision whether they can, with or without help, provide for their child in their own home at present or eventually, or whether they are not and will not be able to assume the necessary parental role, and should, therefore, release the child for permanent placement with another family.

Similarly, the childless couple which feels the need to express love, affection and natural parental instincts to care for and raise a child, and believe that their needs can be fulfilled by adopting a child, deserve a hearing and counsel. The adoptive parents may have problems which will not be solved by adoption. Furthermore, their capacity to provide the proper family life and opportunities for healthy personality development of the available child must be evaluated.

There are more facets of the adoption which must be considered. There are problems of physical and mental health of the child, of the natural parents and of the adoptive parents. There are also problems of race, religion and law which enter into adoption. In brief, adoption is an involved and highly specialized procedure which requires the knowledge and skill of trained personnel. It is unlikely that any one individual alone can successfully conduct adop-

\*This paper was presented at a Rocky Mountain Regional Conference on Adoptions, September, 1956. Doctor Karelitz is Chairman of the Committee on Adoptions of the American Academy of Pediatrics, and has been a consultant to the Louise Wise Child Adoption Center in New York City for a number of years. He is Chief of Pediatrics at the Long Island Jewish Hospital.



tion practice. Indeed, to be successful, adoption requires the efforts of a group, the social service case worker, the physician, the lawyer, the psychologist, the psychiatrist, occasionally the geneticist and others. Adoption has rightfully become the concern of legally authorized agencies, public and private, consisting of trained personnel of many disciplines who are equipped to render service to all, the unmarried mother, the child, the adoptive parents and to the community.

#### **Physician Important**

The physician is an important member of such a group. How does the physician fit into the adoption? In the United States there are annually about 175,000 births out of wedlock and of these children 65,000-75,000 are adopted. Since at least one natural parent, the mother, and two adoptive parents are concerned with each adoption, and since at least two or three and in some areas some ten to thirty pairs of adoptive parents have to be evaluated for each available child, the total number of individuals whose health has to be considered by physicians is great, possibly in excess of one-half million. This is only part of the doctor's job. Physicians of various disciplines are of great help to and play a vital role in adoption agencies. The duties they perform might best be described by indicating what is done by the doctors connected with the Louise Wise Adoption Committee.

An *obstetrician* selected by the mother or one serving the hospital to which she is referred by the agency renders pre- and post-natal care and delivers her baby. The agency obstetrician reviews the obstetrical and gynecological history of the applicant for adoption in an attempt to determine the reason for infertility and whether infertility truly exists. If this possibility has not been excluded, he may, after careful consideration, recommend that this couple have further examination and treatment for their apparent infertility. For the agencies which have ten or more applications for each available child, the selection of adoptive parents is made easier if those who might have their own children are temporarily excluded.

#### **Health of Adoptive Parents**

The *internist* reviews and interprets reports of the physical examination of the mother and of the adoptive parents. It is his task to detect serious illness which may interfere with the adoptive parents' longevity or with their ability to participate in the child's activities. If an infant is accepted into a family constellation, he should have a mother and father who are in good health and who have the average expectancy of life. It would be unfortunate for a child who has been separated from his natural parents to lose either adoptive parent soon after adoption. Yet, in some instances, people with chronic decompensated heart disease, chronic nephritis, paraplegia, multiple sclerosis, and some who had recently undergone operations for incurable cancer, have been recommended to the agency as applicants for adoption by physicians who conceal information about or minimize the gravity of these conditions and indicate only that these individuals cannot or may not bear children.

#### **Pediatric Examination**

The *pediatrician* studies the natural parents' history and that of the child for congenital and inherited defects or abnormalities, or disease traits and must decide whether an infant born of a mother with disease or disease trait may be accepted by the agency. He examines the baby in the first few days of life for defects and for diseases. If the infant's condition is good, this fact is transmitted to the agency case worker. The child is then considered suitable for acceptance and for adoption. If the child's heritage is good he may be considered for immediate or early placement. If for one or another reason, legal, social or medical, he is not placed immediately, he is placed in temporary foster care for further observation. During the stay in the foster home the pediatrician supervises the care and feeding of these children, rendering the same attention to them as he does to those entrusted to his care in his private practice. After placement, and occasionally after adoption has been completed, the pediatrician may be asked to discuss medical problems which have arisen or to re-

examine children who have problems which are suspected of predating placement. Pediatricians are interested in the general health or total welfare of the child; they are interested in keeping these children in good nutrition, in protecting them against infection by good hygiene and by immunization; they are equally concerned with these children's emotional development, their fitting into society and their growing up to be good citizens.

It is of considerable importance that the pediatrician indicate to those who urge placement directly from the nursery that he is not infallible and should not be expected to detect all physical or mental disturbances in the first few days or weeks of life. In fact, he often fails. In a period of fifteen years, the pediatricians associated with the Louise Wise Services have, on the first examination of the infant, found an appreciable number of defects which made him unadoptable. They have also missed disturbances in an appreciable number of those examined in the first few weeks of life. Most of these children were of I. Q. of 85 or below, according to the usual psychological testing procedure. Since all testing in the early months of life shows poor correlation with future development, it is possible that more of these would become adoptable.

Many adoption agencies do not have pediatricians on their staff. Judging by the type and amount of work I am called upon to do for our agency, I feel strongly that this deficiency can and should be corrected. Pediatricians from all parts of the United States would, I believe, if called upon, be pleased to participate in the adoption program.

The *psychiatrist* is one of the most important members of the adoption agency. He is regularly called upon by the workers for evaluation of the natural mother, the adoptive parents, and of the child, especially older children who may be up for placement. He is in constant demand to advise on policy making and public relations.

#### **Other Specialists' Aid**

Whenever indicated, neurologists, dermatologists, ophthalmologists and others are

called upon to help in the evaluation of children up for placement. The anthropologists and geneticists are particularly helpful on the question of hereditary defects and racial characteristics. These experts are usually available in the community, in the nearby hospital or university and are willing to aid, often without compensation. Whether it is in the role of the physician who corroborates the suspected state of pregnancy; whether as the family physician serving in the role of counselor to a distraught widow or abandoned woman left with her infant whom she cannot support; whether as the doctor being consulted about infertility by childless couples; whether as a member of a social agency interested in placing children for adoption, the physician is, or should be, an important link in the chain of personnel who participates in the practice of adoption.

When the physician diagnoses pregnancy in an unmarried mother, he is in a particularly advantageous position to help by referring her to the appropriate social agency for counselling service where she can be heard; her problem discussed by sympathetic, understanding workers; and where aid, in the form of advice, psychiatric consultation and financial support, may be obtained. To do this the physician must be informed of the entire program of adoption aid available to the unmarried mother and of the existence of social agencies concerned with these problems. It is quite common for the doctor to be unaware of existing social agencies in the community, particularly designed to help just such a person.

#### **Disservice to Unborn Child**

Whether it is because of being uninformed, because of lack of suitable facilities or because he prefers to take matters into his own hands, he does occasionally act as an intermediary between his patient and someone, a friend or acquaintance, who is eager to adopt a child. The mere fact that these adoptive parents eagerly desire a child seems sufficient justification for him to recommend that the baby about to be born be placed in their home. He considers the couple wanting this child to be suitable

for this particular baby, in fact for any child which might be available. He usually bases this opinion on the knowledge that these adoptive parents have the same means to support the child, or that they are socially prominent. He may be unduly influenced by the belief that the child will salvage a barren and unhappy marriage. Under such circumstances this physician assumes that he is playing the part of benefactor, although he is perhaps completely unaware of his limited qualifications for this role or of the possible disservice he is rendering to this unborn child, to the natural mother, to the adoptive parents and to society at large. If properly oriented he might be delighted to relinquish his role in adoption to others more suited for this work, provided such agencies are available.

A slightly different type of physician, of whom there are many, is he who is aware of existing adoption services but feels that by virtue of knowing both the unmarried and the adoptive parents, he is able to facilitate placement of this child with greater dispatch and secrecy than would be the case if a social agency was involved. He is often the one who avoids help of social agencies because "they are riddled with red tape, they employ favoritism in placing children, etc." This doctor is not dishonest but he is immodest and requires much more indoctrination to relinquish his so-called benevolent role.

Finally, there is the physician, fortunately rare, who sees a chance of making some easy money by acting as part of a so-called black market adoption group. This type of man probably has a character defect and is not likely to be influenced by education alone. He can and must be put out of business by sound and enforceable legislation and by other effective measures.

At this point, we must ask ourselves the following question: Assuming that all infants and children in the United States being offered for adoption were to be referred by physicians to the existing agencies participating in this program, would there be adequate facilities to handle this case load? There is some doubt that the existing social agencies, public or private, are adequate at this time to handle the

large number of adoptions which take place each year, approximately 75,000, but I am certain that they would try to meet this challenge. If we are to eliminate or even sharply reduce "independent" placements, we must accomplish it by increasing facilities where they are now inadequate in number, and improving the quality of those whose work is below acceptable standards.

### **Education Needed**

As one of the first steps in the correction of the existing deficiencies, we must increase the education of physicians, medical students and nurses in the matter of adoption and to acquaint them with the workings of social agencies and social service groups. This subject is sadly neglected in most of the medical schools. The medical student should be given at least one lecture during his senior year, and those going into obstetrics and pediatrics should be made more aware of adoption while in their internships and residencies. I have often discussed adoption at ward rounds. Whenever a child who is to be adopted is admitted to my pediatric ward, I invariably discuss his adoption with my staff. The nurses and house staff have always expressed interest. On several occasions I have presented a clinic or round table discussion on adoption at hospital staff meetings and before pediatric, obstetric and general practitioner groups. The panel for such a round table discussion usually consisted of an executive and a case worker from an adoption agency and myself, and on occasions also an obstetrician, a psychiatrist and an adoptive parent. Such sessions were always enthusiastically received, and the referrals of infants to the Louise Wise Adoption Service increased for some months thereafter. Barnstorming of this type makes it possible to dispel some mistaken ideas of the manner in which adoption agencies work, especially the notions that you must have pull, or that you have to be rich to get a baby, and that modern agencies are so psychiatrically oriented that "your chance of getting a baby is much greater if you have been psychoanalyzed."

At almost every such session, I have been

approached by at least one disappointed physician whose application for a baby was not acted upon favorably by an adoption agency and who subsequently obtained a baby through independent sources. He is very likely to be aggressive and hostile in his comments, but in doing so he presents us with the opportunity of elucidating many difficult problems to him and to the rest of the audience.

### **Hospitals and Sound Adoption Policies**

Having stressed how the physician of various disciplines can be of help in adoption, I will now turn to the role of the hospital and indicate how it could encourage sound adoptive procedures. Hospitals are ostensibly institutions which render medical care to sick persons. While this is their primary purpose, the service rendered in the hospital does not end when the appendix has been removed, the pneumonia cured, the rheumatic fever arrested, or with the birth of the baby. The better hospital is one of many social institutions which together render complete care, and is concerned with the patient from every aspect—medical, social and economic, not only while the patient is in the hospital but also after leaving it. The hospital social service department investigates the patient's domestic condition, the adequacy of housing, food, clothing, the presence of disease among parents and siblings and, when there is a need, arranges for extra help at home or for convalescent care, sanitarium care or rehabilitation in its broadest sense. Through the social service department the hospital calls upon any and all branches of community agencies to render complete service to the patient. In my opinion, anything less than this service is inadequate for total care of the needy patient. While many hospitals do not have social service departments, this service is available in most communities, towns, counties or states, through welfare agencies.

### **Ethical Considerations**

No person is in greater need of sympathetic help than the unmarried woman who is about to be or has just become a mother. Very often this woman is delivered of her child away from her home, her city and

state. She is uninformed about what help is available to her and her child, or after applying for aid may find herself ineligible because of being from another state. She is quite pleased to place her trust and the future of her child with the first person, often the physician whom she consults. The fact that more adoptive placements are made independently than through agencies is sufficient evidence of what happens through some physicians' activities. Since most of the births occur in hospitals, the hospital is made party to this procedure without, in most instances, being given the chance to render the services which are available to this unmarried mother and her child or to consider the ethics or morality of the entire procedure. Practices close to the margin of legality and far from acceptable, are tolerated in many otherwise fine hospitals. As an example of what happens, I shall cite the following:

U. M., the unmarried mother, visits the physician. She gets to him via an acquaintance, a pharmacist or some other person to whom she has gone for help. Directly or indirectly, the prospective adoptive couple is informed of the fact that a baby will be available. Through a lawyer, they contact the mother and arrange that this or another physician deliver this child. This girl is guaranteed secrecy and payment of all hospital expenses, plus a bonus. Of course, the physician's and lawyer's charges are also included. Usually prenatal care is limited to a minimum. Throughout this period her anxiety is great and the opportunity to discuss her condition with a sympathetic case worker is lost. She is finally admitted to a hospital, any hospital, but often to some special place where these physicians who attract such clientele have delivery room courtesies. She is registered, often under an assumed name or that of the prospective adoptive parents. The child is born. The satisfaction of seeing the child to which she gave birth is denied her for fear that her maternal attraction to the infant might cause her to change her mind about adoption. The infant is looked after by the obstetrician or general practitioner who delivered the child. In instances where I was asked by the physician who delivered



the baby to examine the child, it has been made clear that I should not see the mother or discuss the matter with anyone other than himself.

On occasion the request that I examine the child came from the lawyer of the adoptive parents. Not infrequently the lawyer assured me that I would find a normal infant and after reporting some questionable finding, he would request that I minimize the significance when discussing it with the adoptive family. When it is time for the infant to be taken out of the hospital, a representative of the adoptive parents, a baby nurse or a relative, at times accompanied by their lawyer, presents a note signed by the mother and the child is taken away. In hospitals where no one but the mother may take her child from the hospital, the front steps of the hospital become the place of transfer of the infant to the representative of the adoptive parents. The hospital grounds become the place of barter. All this occurs without ever calling for aid or guidance of the social service department of the hospital or of the community. It is also known that on occasion, fortunately not common, nurses and interns have been part of an "adoption ring," including a physician and a lawyer, and have acted as intermediaries between the mother who happens to come into the hospital as a public charge and the other members of the group.

The solution of these problems is not simple but the situation can be improved almost immediately by prompt action of the medical boards or lay boards of hospitals. To accomplish this I would suggest:

A. Orientation of the nursing and medical staffs in sound adoption practices and in the correct use of social agencies which perform this function.

B. Making it compulsory that parents of every child who is to be adopted, whether born in the hospital or admitted for medical care, be interviewed by a member of the hospital or community social service department.

C. Making it clear that no physician by himself can or may be involved in the adoption procedure without participation of the department of social service, and that

such behavior will be cause for disciplinary action.

D. Making participation in unethical, illegal or the so-called "Black Market" adoptions cause for immediate separation from the medical staff.

The last two suggestions have become a part of the by-laws of the medical board of the Long Island Jewish Hospital and will undoubtedly eliminate to a great extent practices which might otherwise have occurred unnoticed or noticed but disregarded. Since most of our babies are born in hospitals, I look forward to cooperation from the American Hospital Association to exert its influence on member hospitals to concern themselves with adoption procedures.

#### **Adoption a Cooperative Procedure**

My attitude toward the role of the social agency in adoption is quite clear and I wish to re-emphasize that good adoption practice is inconceivable without such participation. I would hope that social agencies were equally aware of the role of the physician in adoption. In my many contacts with higher echelon representatives of social service workers, I have heard the attitude expressed or the implication made that the physician's counsel is sought but is not necessarily heeded. It has been expressed openly that the final say in the decision of adoptability of a child, or of suitability of adoptive parents *must* be that of the social service executive. Undoubtedly, the social service worker or executive director of the agency should be the spokesman for the group. I am aware of the fact that some physicians rule out placement of children with relatively minor handicaps, while others are more liberal in their opinions. It is true that what is considered best for the child by one may not be in keeping with current medical opinion or with the opinion of the particular social service worker concerned. Furthermore, what physicians and social agencies considered contraindications for adoption ten to twenty years ago, we now regard as quite compatible with good placement. Nevertheless, I would warn against the attitude that the final word rests with any one person or



with any one representative of a single discipline. If this were true, no argument could stand up against the physician or the lawyer who takes on the entire adoption procedure as his role. Agency opinion must be group opinion and the physician as well as the case worker, the social service executive, and the lawyer, must share in it equally. Consultation with other physicians may result in a different opinion than that expressed by any one member of the group but the majority opinion should prevail.

There can be no doubt that, if social service help was made available to all unmarried mothers, fewer babies would be independently placed and many more would go through good agencies. A greater service

would be rendered the natural parents, the infant, and the adoptive parents; in the long run making better adjusted, happier citizens for the community.

In summary, it is sufficiently evident that the physician of varied disciplines can and should render important and effective aid in adoption. Orientation of medical students and physicians as to the workings of social agencies in this field, and the advantages of sound adoption practice is needed. Hospitals can be effective aids in reducing the questionable types of adoption practice by insisting that the staff members must have social service participation in all adoptions with which they are concerned.

## Radioactive Gold in The Treatment of Prostatic Cancer\*

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*An encouraging report on the use of radioactive gold in those cases  
of prostatic cancer which are beyond the scope of surgery.*

THE story of the use of radioactive gold in the treatment of carcinoma of the prostate is one of the fascinating chapters in the history of urology. In 1951 Dr. Rubin Flocks and his associates at the University of Iowa first used this material in the treatment of prostatic carcinoma. Radioactive gold was chosen because it is a colloidal material which is capable of being injected through a needle. Approximately 95 per cent of its radioactivity is in the form of Beta rays and the remainder are Gamma rays. The half life of the material is approximately two and nine-tenths days. Inasmuch as Beta

rays have a maximum penetration of only three to four mm. it is possible to concentrate most of the ionizing rays to a limited field, thus achieving relatively huge doses in the tissue to be treated, yet sparing the surrounding areas needless irradiation.

The technics of insertion vary in the different centers, yet the purpose is to inject the colloidal material into the tumor in such a way that, as far as is possible, a uniform distribution is achieved. This is usually accomplished by injection through a suprapubic exposure of the gland. Where obstruction has been a problem we have always advocated relief of this by either digital enucleation of the presenting tissue or by use of the conizing tip of the electro-

\*Presented before the Annual Session of the Colorado State Medical Society in Estes Park, September, 1956. From the Colorado Springs Medical Center.

surgical unit. This insures an adequate outlet to the bladder neck and also diminishes the amount of tissue requiring irradiation. The subsequent care of the patient is that of any suprapubic prostatectomy with special safeguards to protect those caring for the patient from undue radiation exposure.

Patients chosen for this type of therapy are those who have a positive diagnosis of carcinoma of the prostate which has progressed beyond the scope of radical surgery, yet in whom no distant metastases can be demonstrated. It is generally accepted that early lesions should be treated by radical surgery. In certain situations where surgery of this magnitude is contraindicated certainly radioactive gold can be injected perineally and the lesion irradiated locally. Patients showing distant metastases are treated palliatively with relief of bladder neck obstruction and attempts at hormonal control. In fact, until the advent of radioactive gold, all patients save the early cases suitable for radical operation were treated in this manner. When we consider that certainly not more than 5 per cent of the cases seen have lesions which will be benefited by radical surgery and that approximately 40 per cent show evidence of metastases it becomes apparent that there is a great group of patients with Ca of the prostate who are candidates for treatment with radioactive gold. Few patients, if any, have ever been cured by hormonal control so it behooves us to utilize and perfect, if possible, any method which gives at least as valuable a palliation and in some a possibility of cure.

Our first patient was treated February 1, 1952. This man was 77 years of age and presented himself with a history of six months' treatment with hormones with no improvement. He had a hard nodular fixed prostate with vesicle neck obstruction causing an overflow-type incontinence. The bladder was distended and the patient was wetting himself every few minutes. Studies revealed no evidence of distant metastases and having heard of Dr. Flock's work with radioactive gold we decided to utilize this material. Because of the obstructive symptoms part of the gland was enucleated and 30 m.c. of radioactive gold was injected.

The postoperative course was so gratifying that after observing him for some months we were encouraged to treat other patients by this same method. After three months' time the gland had diminished in size and had changed in character until it was impossible by rectal examination to feel any suspicious areas. For three years there was no discernible change, then in January, 1955, a hard area was detected which was positive to biopsy. This was treated by the insertion of 37 m.c. of radioactive gold through needles inserted into the mass through the perineum. The patient is now over 80 years of age, has had three strokes and is in poor condition. The prostate feels fibrous at the present time but his general condition precludes any further treatment.

Early in our experience it was most gratifying to have some of these glands change so in character that they become normal feeling to the palpating finger. Some did not respond so dramatically for subsequent to injection hard areas remained which on biopsy were positive for Ca. In these patients we made repeated injections.

For the purpose of this discussion seventeen cases are presented. All of these have had their initial injection from two to four and a half years ago. We have attempted to follow these patients by the use of biopsies obtained through the Silverman needle. Ideally, biopsy should be done every six months after initial treatment. This ideal has not been achieved. When subsequent biopsy is positive the patient is re-injected through needles inserted through the perineum. This is a simple procedure and like the needle biopsy causes the patient little or no discomfort or inconvenience. At the present time we repeat this procedure as often as the biopsy indicates the need for further irradiation.

Of these seventeen patients, five are now dead, and a brief examination of these deaths is of interest.

1. S. C. had a far advanced Ca of the prostate involving the entire vesicle neck and extending into the bladder. He was injected palliatively in hope that we might cut down on the multiple hemorrhages and vesicle spasms. He died three months later

from burns and at the time of his death had widespread metastases.

2. C. M., aged 66, had had three TUR's for Ca, had repeated severe hemorrhages and was uremic. He was operated as an emergency to try to control bleeding and gold was injected. He went on into deeper uremia and died ten days postoperatively.

3. R. J. expired fourteen months following injection. His death was due to cardiac failure. He had experienced marked shrinkage and atrophy. No postmortem examination was done.

4. G. S. died two years after injection of a cerebral vascular accident. He had a positive biopsy on his last check. No postmortem examination was done. Both of these deaths occurred away from this vicinity.

5. H. V. died ten days postoperatively of pulmonary embolism. Postmortem examination revealed many areas of necrosis in the prostate but there was some viable tissue present.

Of the twelve patients living, five show no evidence of Ca as far as we are able to determine. Biopsies in these patients is negative. The other seven are those who have hard areas present who are receiving additional injections and are considered to be positive.

Following is a brief resume of the status of each of these patients.

1. W. M., aged 77, first injected February, 1952. Had a subsequent injection May, 1955. Total amount of radioactive gold 67 millicuries. At present is probably positive.

2. R. R., aged 68, first injected April, 1953. Has had two negative biopsies and at present the gland feels normal. Total gold 42 millicuries.

3. J. B., aged 75, first injected April, 1953. Has had two negative biopsies and at present the gland feels normal. Total 56 millicuries.

4. L. F., aged 68, first injected July, 1953. Has had two negative biopsies. The gland still feels hard but biopsies are negative. Total 41 millicuries.

5. W. L., aged 61, first injected October, 1953. Has had three subsequent injections for a total of 147 millicuries. At present

there is a hard area in the prostate but his last biopsy was negative.

6. A. W., aged 63, first injected October, 1953. Has had two subsequent perineal injections for a total of 82 millicuries. He still has a hard area and is considered positive.

7. C. L., aged 63, injected February, 1954. Total 74 millicuries. Has had three negative biopsies and the prostate feels normal.

8. W. F., aged 69, first injected July, 1954. Has had two subsequent perineal injections with a total of 136 millicuries. Has some hard areas remaining in the prostate and is considered positive.

9. R. S., aged 69, first injected October, 1954. Total of 42 millicuries. Has had two negative biopsies. There is a firm area in the prostate at the present time and he is considered positive.

10. E. B., aged 66, first injected September, 1954. Total 35 millicuries. Has had one negative biopsy. The prostate feels normal as of six months ago.

11. M. S., aged 64, first injected November, 1954. He has subsequently had three perineal injections with a total of 151 millicuries. There are hard areas present in the prostate and he is considered positive.

12. T. R., aged 62, first injected November, 1954. He has had one perineal injection with a total of 132 millicuries. There is a hard area present and he is considered positive.

It is obvious that we can draw no conclusions from such a small experience. Yet enough time has passed to give certain impressions about this treatment. From the beginning, it has been apparent that the methods used for injection have been inadequate and that the great need was for some technic which would insure that the material be so dispersed that all of the tumor cells would be exposed to adequate irradiation. As yet that technic is not available.

Practical observation and the studies of the research centers have shown that the injection is spotty and consequently all of the tissue is not adequately exposed. At the present time the best we are able to do is to repeat injections in the hope that

multiple applications will at least partially overcome the deficiency of the first. On the other hand, the use of radioactive gold is a relatively simple procedure and unlike many cancer operations leaves the patient able to carry on much as before. Strangely enough, there is almost uniformly a distinct sense of well being subsequent to the injection. Most of these patients do well, and there are few complications.

At the present time the use of the injectable radioactive materials in combination with all the methods of hormonal control

is the treatment of choice for those patients with prostatic cancers which are beyond the scope of radical surgery and yet in whom there are no demonstrable metastases. With this combination, satisfactory palliation is achieved and in some patients there is a definite hope of cure.

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## Anesthesia From the Viewpoint Of the General Practitioner\*

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*A paper for the general practitioner-surgeon reviewing those agents feasible for him to use. The importance of preliminary medication is stressed. A new anti-depressant agent is described as well as the new specific counteractant for morphine.*

**A**NESTHESIA, from the viewpoint of the general practitioner, must be as simple and safe as possible. These two qualities are not too difficult to maintain at present, partly because operations done by the general practitioner usually are not of such magnitude as are procedures on the brain, lung and heart.

#### Premedication

When both the operation and anesthesia must be conducted by the same person, as is often true in general practice, infiltration anesthesia can be employed with con-

siderable success. With the preliminary medicaments that are available today, the physician can bring the patient to a state of tranquility of a definite degree, and he can practically eliminate the patient's objection to the use of a local anesthetic agent. Block anesthesia can be used, or it may be that spinal anesthesia is easier for the physician to employ than are some of the technically difficult forms of nerve block.

Such drugs as phenergan, thorazine or equanil may be employed, together with small doses of morphine such as one-eighth or one-sixth grain, if some form of general anesthesia also is to be used. If general anesthesia is not to be employed, the dose of morphine may be increased.

For emergency operations the foregoing

\*From the Section of Anesthesiology, Mayo Clinic and Mayo Foundation, Rochester, Minn. Read at the meeting of the Wyoming State Medical Society, Moran, Wyoming, June 30, 1956. The Mayo Foundation, Rochester, Minnesota, is a part of the Graduate School of the University of Minnesota.

procedure is effective, since the drugs mentioned can be given by injection. Phenergan, in particular, helps control nausea and vomiting, and it is not likely to lower the blood pressure if the patient is lying on his back. When hospital facilities are available there usually is someone near who can administer the anesthetic agent, or at least sit at the head of the table while the operation is being performed. Under such circumstances preliminary medication is very important.

If the procedure is elective, the patient most probably will go to the hospital the day before operation. On the evening of the day prior to operation the physician may administer 25 mg. of phenergan hydrochloride by mouth and 500 mg. of placidyl or some other sleep-producing drug, assuming that the patient is an adult. The patient should be visited the next morning, before the operation, and inquiry should be made as to how well he slept. If it is ascertained that the patient slept all night so soundly that he had to be awakened in the morning, the physician must be most cautious in ordering large doses of drugs for preoperative use. On the contrary, if the patient did not sleep well, then the physician ought to administer larger doses of the drugs. As a rule, after such premedication, patients do sleep satisfactorily on the eve of operation, so that on the morning of operation, at least one-half hour beforehand, 25 mg. of phenergan hydrochloride can be given intramuscularly, plus one-eighth or one-sixth grain of morphine, with 1/150 grain of atropine.

#### **Anesthesia**

Probably the easiest method of anesthesia that can be employed is the administration of pentothal sodium by vein, and a small amount of curare, plus the use of oxygen and nitrous oxide. It is customary to speak of "nitrous oxide and oxygen," but I wish to stress the use of oxygen. Maintenance of a good airway is important, and if an intratracheal tube can be placed, it will add to the safety of the patient.

A note of caution is needed here: one must be careful about the rate of administration of pentothal sodium after prelim-

inary medication because the effects of preliminary medication may reduce the necessary dose of pentothal sodium by half or more. Hence, it would be relatively easy to suppress respiration too much, especially if solution of curare has been added to the pentothal sodium. Both of these drugs, if they are to be used, should be administered intermittently and a little at a time. The movement of the diaphragm should not be stopped.

The flow-meters on the gas machine should register about seven liters of nitrous oxide and three liters of oxygen per minute. Maintenance of this quantitative relationship is most important, and the flow of gas should be kept at this volume. For example, if the flow were eight liters of nitrous oxide and two liters of oxygen per minute, the arterial oxygen saturation might readily reach 90 per cent, whereas if the flow were seven liters of nitrous oxide and three liters of oxygen per minute, the arterial oxygen saturation would be 100 per cent. I stress these factors because, in my opinion, most instances of cardiac arrest develop during anoxia. Hence, since the tendency today is to use agents that depress respiration, both the quantitative relationship of nitrous oxide to oxygen and the total volume of the mixture are important in the use of these gases.

When it is necessary that absolutely fire-proof conditions prevail, the method just described is very satisfactory. When fire-proof conditions need not prevail, a small amount of ether can be added to the oxygen and nitrous oxide, which means that little pentothal sodium or curare will be necessary.

#### **Anesthesia for Children**

When the patient is a child, the intramuscular administration of 1 mg. of phenergan hydrochloride per ten pounds of body weight, plus a small quantity of atropine (1/450 or 1/600 grain), followed by the rectal administration of 0.2 c.c. of a 10 per cent solution of pentothal sodium per pound of body weight, is satisfactory preoperative preparation. The child goes to sleep in a few minutes, and can be taken to the operating



room and there anesthetized quickly and efficiently.

However, when tonsillectomy and adenoidectomy are to be carried out, a small intratracheal tube should be emplaced and connected to the gas machine, so that most of the anesthetic difficulties encountered when such a tube is not used can be avoided. The intratracheal tube should be marked so that the mark will be visible above the vocal cords, and so that the tip of the tube will be approximately midway between the vocal cords and the bifurcation of the trachea. This is an important point in technic, because if the tube is inserted too far, it will touch the bifurcation of the trachea, causing continuous coughing. If the tube is passed still farther, it will enter the right main bronchus and disturb ventilation.

#### **Spinal Anesthesia**

Spinal anesthesia produced by the single-dose technic has much to recommend it. However, unless the operation is a short one, anesthesia may abate before the operation is completed. Continuous spinal anesthesia is a natural answer to this problem, but it is a technic which would not be convenient for the general practitioner to employ. Hence, if the single-dose technic is used, thought must be given to means of finishing the operation after the effect of the spinal anesthetic is dissipating. In such a circumstance the intravenous injection of a dose of morphine is very helpful. Small quantities of pentothal sodium injected intravenously also are helpful; or nitrous oxide and oxygen may be administered.

#### **Trichloroethylene Anesthesia**

Trichloroethylene is an agent which has possibilities when it is used by those who understand thoroughly that the dose must be small, that the patient must not be anesthetized and that only a state of analgesia may be produced if safe conditions are to prevail. Trichloroethylene must not be used in a gas machine with a soda-lime absorber, because the combination of trichloroethylene and soda lime produces dichloroacetylene, which is explosive, and phosgene. Both of these products are toxic if inhaled. The

danger of sudden death during trichloroethylene anesthesia arises in the development of cardiac irritability and fatal auricular or ventricular fibrillation.

#### **Ether Anesthesia**

The standard diethyl ether that we have all used so much is one of the safest general anesthetic agents available. Even though there have been many complaints of nausea after the use of diethyl ether, there are worse things than nausea and today we have a number of ways of controlling nausea. One effective remedy for nausea is a 50-mg. dose of marezine injected intramuscularly three times a day. Dramamine also has been used. It is supplied in a 50-mg. tablet or in liquid form. A dose of 50 mg. may be given by mouth, by rectum or parenterally. Another preparation which I devised is hyatrobol, a mixture of hyoscine, atropine and pentobarbital, which has been useful in combating nausea when the patient can take the preparation by mouth. The simultaneous administration of phenergan hydrochloride with hyatrobol is an almost certain remedy for nausea and vomiting.

#### **Vinethene Anesthesia**

Vinethene can be administered by the closed method, meaning that it can be added to nitrous oxide and oxygen, but the most satisfactory way to administer it is by the open-drop method. Vinethene produces anesthesia quickly, and the patient will recover consciousness rapidly after administration of the agent has been discontinued. I find this type of anesthesia useful for short procedures, such as myringotomy, and it is adequate for measuring the tension in the eyeball of a child, a procedure that may have to be repeated several times in a period of a few months. I would much prefer to use vinethene than trichloroethylene.

I have purposely omitted a discussion of cyclopropane and ethylene because they are flammable and explosive, and do not seem to me to be useful in general practice. I likewise have not included such complex technics as hypotensive anesthesia and hypothermia.

## Overdosage

Every general practitioner at some time is called upon to deal with an overdose of a drug. The overdose may come about deliberately or by accident. In any event, it is important to point out that there is a drug, nalline hydrochloride (N-allylnor-morphine hydrochloride), which will neutralize the effects of morphine. The word "morphine" is emphasized, for if overdosage was not brought about by morphine, but by some other drug, such as a barbiturate, the depression will only be increased by nalline hydrochloride, and will not be relieved. If the agent in the overdosage is not known, the use of nalline hydrochloride might help to establish the diagnosis by exclusion, since if depression was increased by nalline hydrochloride, the original agent could not be morphine. Use of nalline hydrochloride in this manner, however, increases the danger to the patient and it could make the situation a difficult one.

## A New Antidepressant Agent

Recently, fortunately, there has been made available lorfan tartrate, which, when given intravenously, will neutralize largely

the effects of depressant drugs. It would be well to have this preparation immediately at hand for emergency use.

To illustrate, let me recall a case in which too much medication was prescribed. The patient was a woman 50 years old, who weighed about 100 pounds. Medication included 1/100 grain of scopolamine and 1/6 grain of morphine and one hour later another 1/6 grain of morphine was added. The patient reached the operating room almost unconscious, breathing nine times a minute, with a dusky color. The anesthetist became concerned by the condition of the patient and I suggested that lorfan tartrate be administered. This was done; 1 c.c. (1 mg.) was given intravenously, and in less than a minute the patient was breathing twenty times a minute, the color was good and no further complications developed.

## Comment

Many remarkable advances in anesthesiology have been made in the past thirty years and are now available to the general practitioners of the nation. I am convinced they will use them ably and with conspicuous success.

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## AMA PRODUCES NEW FILM FOR THE PUBLIC

"What doctors do as a group is sometimes more important than what they do individually." These are the words of news commentator John Cameron Swazy in setting the stage in a new AMA film for a series of incidents documenting how organized medicine serves Americans everywhere. Swazy is narrator for this 30-minute color film scheduled for release to medical societies for local showings September 1. The film will be premiered August 28 at AMA's Public Relations Institute in Chicago.

Titled "Whitehall 4-1500," the film tells the story behind this phone number, which puts a caller in touch with America's physicians as a group—the American Medical Association headquarters in Chicago. Dramatic, short sequences show how AMA in action helps save youngsters' lives through poison control activities, helps reduce highway deaths, helps place physicians in isolated areas, helps make jobs safer for industrial workers and life better for everyone. It

reveals the story of AMA efforts to solve many current health problems, such as alcoholism and mental illness.

"Whitehall 4-1500" tells a positive story unfamiliar to many Americans—a story "behind the headlines," says Swazy. He also says that "shoved to the back pages are items which you and I know are the real news of the day . . . the warm stories of America's innate dignity, its dedication to high ideas . . . the unselfishness and service to others which are the prevailing concepts of our way of life."

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## HEALTH NOTES—

Heart disease is apparently more prevalent among women than men, Health Information Foundation points out—but it causes 75 per cent more deaths among the males in this country. One possible explanation of the excess male mortality: Men are thought to be particularly subject and vulnerable to the strains and pressures of modern life.

# Treatment of Skin Infections With Tetracycline And Oleandomycin\*

Henry M. Lewis, M.D.,  
Gerald M. Frumess, M.D., and  
Egbert J. Henschel, M.D.

DENVER

*Antibiotic therapy of many bacterial skin infections yields spectacular results.*

**M**OST bacterial infections of the skin respond quickly to therapy with tetracycline or other antibiotics. However, it has become apparent that certain skin pathogens, particularly staphylococci, are occasionally refractory to one or more of the agents in common use, and that the incidence of antibiotic-resistant strains of staphylococci is increasing. This increase has been observed both in patients and in clinical personnel who may act as carriers.

Several studies have shown that bacterial resistance to an antibiotic is associated with extensive use of that antibiotic, and that it disappears gradually when the use of the antibiotic is curtailed. For this reason it is important, in treating infections in which the possibility of antibiotic resistance must be considered, to utilize available agents in such a fashion that the possibility of resistance is minimized. The use of two effective agents in combination has been urged as a practical method by which this might be accomplished. Combination therapy is already generally accepted in the chemotherapy of tuberculosis, where resistance to single agents is a serious problem. As a result, clinical resistance to antituberculosis drugs rarely threatens therapy.

Combinations of effective antibiotics have been equally valuable in treating other infections where microbial resistance may oc-

cur. Finland, for example, reports that the intensive use of erythromycin in many hospitals has resulted in the appearance and rapid increase in the incidence of erythromycin-resistant staphylococci, but by using erythromycin only in combination with other effective agents such changes have been avoided in the Boston City Hospital. Combinations may exhibit two kinds of properties that are pertinent to the problem of resistance: microbial strains resistant to a combination may occur far less frequently than to any of its components and, in addition, strains resistant to either or both of a pair of antibiotics administered alone may be sensitive to them when they are administered together.

With regard to the first property, any antimicrobial combination is expected to be superior to its components in minimizing resistance, provided only that its components are each present in effective concentration, and that its components act through different mechanisms. Therapy with such a combination should be effective against any strains resistant to either of its components, and should fail only against strains simultaneously resistant to both. The proportion of such doubly resistant strains in a given situation cannot by its nature exceed the proportion of strains resistant to either agent considered separately, and may be considerably lower.

Thus, in the development of a newly resistant strain from a previously sensitive one, which has been reported even during treatment of a single patient, resistance to a single antibiotic develops with a frequency

\*Signemycin (brand of tetracycline-oleandomycin mixture) was kindly furnished for this study by Dr. W. Alan Wright, Medical Department, Pfizer Laboratories, Brooklyn, New York. The authors have a list of thirty references which are available upon request of reprints of this article.

on the order of once in ten million cell generations. Resistance to a combination of two antibiotics is expected to develop, on the other hand, only once in about one hundred trillion cell generations according to Demerec. This represents a ten-million-fold reduction in resistance; thus the likelihood of its development is vanishingly small.

In situations where resistance to single agents is already present in a significant proportion of strains, resistance to both is also expected to be less frequent, although the reduction in this case is less spectacular, and disappears as resistance to either component approaches 100 per cent. For example, Knight and White have recently described the resistance of staphylococci isolated from patients. Among 2,021 coagulase-negative strains, penicillin resistance occurred in 59 per cent and tetracycline resistance in 56 per cent, while resistance to both was reduced by almost half, occurring in only 31 per cent. Among 648 coagulase-positive strains, penicillin resistance occurred in 75 per cent and tetracycline resistance in 51 per cent. Even here, where penicillin resistance was approaching completeness, resistance to both was lower than to either, occurring in 46 per cent. Thus a combination of antibiotics may be expected to delay almost indefinitely the formation of new resistant strains by mutation, and in addition may be effective more frequently than its components in situations where some resistance to the components already exists.

The second property that a combination may show against organisms resistant to its components is an enhancement of effectiveness referred to as synergism or potentiation. Unlike the previously described phenomenon, this enhancement is not predictable, but may occur with specific combinations against particular strains of pathogens. It has been repeatedly demonstrated both *in vitro* and in clinical studies, using several combinations of antibiotics. Jawetz has contributed a number of well-documented instances, and has recently reviewed the entire subject. The converse effect, antibiotic antagonism, has been demonstrated *in vitro*, but is extremely unlikely

to occur clinically, according to Jawetz.

In the study to be reported here, tetracycline was used in combination with oleandomycin in the treatment of bacterial infections complicating a number of different skin disorders. The properties of tetracycline are well known and need not be described in detail. Oleandomycin is a newly discovered antibiotic produced by a strain of *Streptomyces antibioticus*. Its effects distinguish it from all other antibiotics, although its chemical structure has not yet been completely elucidated. Although cross-resistance with erythromycin has been regularly demonstrated when resistance was artificially induced, it has been observed only sporadically in erythromycin-resistant strains freshly isolated from clinical material. Oleandomycin is effective against many of the pathogens sensitive to tetracycline, and its activity against staphylococci extends to strains resistant to tetracycline, penicillin, and other antibiotics. Extensive tests on experimental animals and in patients have shown it to be effective and unusually free of undesirable effects.

A physical mixture combining two parts of tetracycline with one part of oleandomycin has been used clinically by several groups of investigators in the treatment of various systemic bacterial infections; they have reported it to be a highly effective form of antibiotic therapy, with a low incidence of side reactions.

English and his colleagues, reporting on laboratory investigations of this combination, have concluded that it displays certain properties not shown by either agent alone. They state that it has marked ability *in vitro* to retard the emergence of antibiotic-resistant variants of a strain of *Micrococcus pyogenes* var. *aureus* and a strain of *Streptococcus pyogenes*. These investigators have also concluded that the combination showed synergistic activity *in vitro* against selected microorganisms, including antibiotic-resistant clinical isolates, and *in vivo* against both normal and antibiotic-resistant *M. pyogenes* var. *aureus* and *Str. pyogenes* infections in mice.

These experimental observations suggest that the tetracycline-oleandomycin combi-

nation may also be useful clinically in minimizing the danger of antibiotic-resistant infection.

#### Materials and Methods

Patients were selected for this study who presented clinical evidence of infected cutaneous lesions likely to respond to antibiotic therapy, but were excluded if they were already responding satisfactorily to other therapy. One hundred consecutive patients who met these criteria received therapy with orally administered tetracycline and oleandomycin; after six weeks of therapy, evaluation was possible in eighty-seven patients, who form the basis of this report. Each patient received an initial daily total of 667 mg. of tetracycline and 333 mg. of oleandomycin, divided into four doses, which was continued until there was evidence of clinical response. At that time an effort was made to reduce the dose to the lowest level at which clinical improvement could be maintained, and this dosage was continued in each case throughout the six-week period.

The infections in these patients were associated with the dermatoses listed in Table 1,

**TABLE 1**  
Primary Diagnoses in Patients With Bacterial Infections

Diagnosis	Number of Patients
Acne .....	58
Abscess .....	4
Folliculitis .....	4
Atopic dermatitis .....	5
Impetigo .....	3
Hemostatic ulcer .....	3
Infectious eczematoid dermatitis.....	2
Dermatophytosis .....	2
Hidradenitis suppurativa .....	2
Rosacea .....	1
Nummular eczema .....	1
Ecthyma .....	1
Pyoderma .....	1
Total.....	87

but the results of therapy were judged solely in terms of its effect on the bacterial infection.

#### Results

The results of therapy with tetracycline and oleandomycin are summarized in Table 2. Among sixty-five patients who had had no previous antibiotic therapy, a good response was achieved in 86 per cent, a fair response in 5 per cent, with the frequent appearance of new lesions in spite of moderate improvement, and no response in 3 per cent. Therapy produced significant side reactions in 6 per cent (four patients) over the six-week test period: diarrhea in three patients, and urticaria in one.

Among twenty-two additional patients, all of whom had previously failed to respond to other antibiotics, a good response was achieved in 50 per cent. Failure occurred in 27 per cent of this group with resistant infections, and significant side reactions were observed in 11 per cent (two patients) who developed diarrhea after starting the therapy.

In most of the patients it was possible to reduce the antibiotic dosage significantly after improvement had occurred. In fifty-nine of the eighty-seven, the dosage of antibiotics was halved, so that improvement was maintained during most of the six weeks on a daily total of 333 mg. of tetracycline and 167 mg. of oleandomycin.

#### Conclusions

It is instructive to compare the results of tetracycline-oleandomycin therapy in the two groups of patients treated in this study. While the response of patients not previously treated with antibiotics was comparable to that usually observed toward broad-spectrum agents, the most encouraging response came from the group of patients who had failed to respond to any of several commonly used antibiotics. The fact that more than half of these patients were

**TABLE 2**  
Results of Therapy With Tetracycline-Oleandomycin Combination

Status of Patients	Number of Patients	Response			Side Effects
		Good	Fair	Poor	
No previous antibiotic therapy.....	65	56	3	2	4
Previous unsuccessful antibiotic therapy.....	22	11	3	6	2



benefited to some extent by this combination suggests that it may exhibit enhanced clinical activity under certain circumstances, although a synergistic effect is by no means conclusively demonstrated.

Similarly, the idea that this combination can retard the emergence of bacterial resistance is not demonstrable by our results. Nevertheless, our data suggest that this may be the case: during this study patients were exposed to doses of tetracycline and oleandomycin for a period exceeding 3,600 patient-days, yet in no instance did an infection become resistant to the combination during the course of therapy.

On the basis of these results, tetracycline

and oleandomycin in combination may be indicated in many clinical situations where it is desirable to reduce the risk of antibiotic resistance.

#### Summary

Eighty-seven patients with various infections of the skin were treated over a period of six weeks with a combination of tetracycline and oleandomycin. Excellent or good results were achieved in sixty-seven, including eleven of twenty-two patients refractory to other antibiotics. Side reactions occurred in six patients. None of the infections became resistant to therapy during treatment.

## The Neurologic Complications In Diabetic Children\*

Donn J. Barber, M.D.

GREELEY, COLORADO

*Although neurologic complications do occur with hyperglycemia, the author feels that more serious damage may be done when hypoglycemia results from overdosage with insulin. He therefore recommends a liberal diet and careful management in diabetic children to prevent episodes of hypoglycemia.*

**D**IABETES MELLITUS in childhood is more prevalent than is usually considered, there being at least 1,000 cases in Colorado under the age of 15; but the number whose onset is in childhood is many times that figure. The sex incidence in juvenile cases is about even although the onset in girls is earlier which is felt to be due to the influence of puberty. The diagnosis of diabetes in childhood and in youth is no different from that in later life. However, it must be remembered that glycosuria, that is harmless

glycosuria, is much more frequent in the younger age group so that before a regime of dietary restriction and Insulin is begun an accurate diagnosis of true diabetes must be established by determining the fasting blood sugar, postprandial blood sugar or a glucose tolerance test.

#### Classifications

The neurologic complications of diabetes in childhood are rather easily divided into two general classifications; that is, the cerebral damage from hypoglycemia which occurs with excessive amounts of Insulin, and the neurologic disorders which are produced

\*Presented at the Colorado State Medical Society Annual Session September 5-8, 1956, Estes Park, Colo.

by prolonged hyperglycemia and ketonuria. The latter usually involve the peripheral nerves but may involve the spinal cord and the central nervous system as well. Since hypoglycemia is easily induced in juvenile diabetics and serious acidosis and hyperglycemic states quickly result from inadequate control, those of us who have the medical management of diabetic children should do everything within our power to be assured that these young diabetics have as good control as can be obtained with their easily disturbed metabolism.

### **Insulin Reactions**

The dangers of Insulin reaction were realized as early as 1921 when Joslin cited a number of severe reactions found in children, some of which resulted in death. The cause of the deaths was hypoglycemia which had been misdiagnosed and treated as diabetic coma. While Insulin reactions constitute one of the major problems in the treatment of diabetes of all ages it is especially imperative that severe Insulin reactions do not occur in youth since their central nervous systems are so much more sensitive to the anoxic effects of a low blood sugar. Occasionally a boy or girl in a hypoglycemic state will be sent to jail upon the supposition that he or she is drunk, or to a hospital as an epileptic, or a student will fail long written and oral examinations upon which a whole year of study depends, so that even though permanent damage may not be done as a result of hypoglycemia the fear of a reaction is distressing.

### **Physiology**

The pathologic physiology of severe hypoglycemia concerns the tissue of the central nervous system. Nerve tissue lives on carbohydrates and suffers anoxia during hypoglycemia. Degeneration of ganglion cells and cortical necrosis occur. Water is redistributed from the extracellular to the intracellular spaces. Punctate hemorrhages are found. Encephalographic changes and retinal hemorrhages have been reported. It seems that children would be aware of hypoglycemia of sufficient duration to produce the tremendous changes just described yet one cannot help but wonder why these young people are allowed to

have hypoglycemia of duration sufficient to produce organic disturbances. There are several explanations for the occurrence of these more severe forms of hypoglycemia. In sleep hypoglycemia may progress without recognition. Occasionally as a result of a deliberate attempt to gain attention or for suicidal purposes these young people, particularly in the teenage group, take an excessive amount of Insulin. These reactions may also be used as an attention getting mechanism, as a manifestation of the patient's refusal against the prolonged and tiresome regimen; and also a manifestation of the difference he feels between himself and his associates.

### **Liberal Control**

Large doses of Insulin must not be given until one is absolutely certain that the condition is in truth diabetic acidosis and not hypoglycemia. It is our obligation to instruct the family about the dangers of hypoglycemia; but we must also instruct them about the dangers of hyperglycemia, that is ketonuria and glycosuria, so that they will not develop a careless attitude and feel more and more free when the child is running positive tests in his urine. We cannot expect the child to be sugar free at all times. The ideal situation is when the child is running less than 10 per cent of his carbohydrate intake in his urine with relative long periods when he is sugar free. Certainly he should not have ketonuria. We emphasize to the patient and to ourselves that we must be ever mindful that once the brain has been damaged by hypoglycemia the return of the blood sugar to normal or even an elevated level may not reverse the damage upon the brain which has resulted from the low blood sugar.

### **Hypoglycemic Mental Changes**

While the average diabetic has an intelligence quotient of approximately ten higher than nondiabetics nevertheless the incidence of epilepsy in the diabetic child is considerably higher than it is in the general population. This is considered to be the result of episodes of low blood sugar producing focal organic disturbances in the brain.

The mental and emotional disorders re-

sulting from prolonged hypoglycemia are illustrated by the following case which was under my care for sixteen years. This lad was an affable, friendly extrovert who developed his diabetes at two years of age and who in recent years had been fairly well controlled on approximately 32 units of Insulin. About one year ago the family moved to California. While there he became ill, was placed in a hospital, and Insulin was increased to 60 units daily. A month after discharge from the hospital, this normally well integrated child became moody, cried at frequent intervals and developed in brief, a severe depression. The parents were distressed by his behavior and since he was an only child, moved back to Colorado believing that in his old surroundings the emotional instability with its depression and anxiety would be improved. After he returned he continued to have periods of uncontrolled weeping, stayed in his room for long periods of time and began to disassociate himself from all of his friends. Physical examination revealed an apprehensive young male who stated at frequent intervals he felt that he was going to die, and he felt terribly depressed and he wanted to cry all of the time. He could give no reason for this change in his behavior. Laboratory investigations were normal except that a fasting blood sugar was found to be 40 mg. per cent. The Insulin was decreased to about 25 units and he was told to go on a free diet. An encephalogram taken shortly thereafter showed rather gross waves with increased cortical activity on the left side. Psychiatric interviews were obtained, his blood sugar was maintained from 120 to 170 and he was allowed to run from one to two plus sugar in his urine. After six weeks he gradually improved and now seems to be as emotionally stable as before. While it cannot be proved that this youngster had emotional problems due to hypoglycemia yet it was felt by the psychiatrist and myself that his condition was the result of prolonged hypoglycemia.

#### **Hyperglycemia and Neuritis**

In the second classification of neurologic manifestations of diabetic children are those due to prolonged, uncontrolled diabetes

with a persistent high blood sugar and ketonuria. There is no complete explanation for the neurologic changes which result in diabetic neuritis. The neuritis may fall into any pattern, the spinal cord may be involved as well as the cranial nerves or the brain. Any form of neurologic tissue change may take place as a result, complete paralysis of one or both extremities, the loss of sphincter control, or sympathetic nervous system changes resulting in profound postural hypotension. These neurologic complications in children are not nearly as frequent as the complications occurring as a result of too much Insulin. Again let it be stated that this is not a plea for carelessness in the management of these patients. Though not as frequent as in the older age group, neurologic complications do occur. There are now under my care a number of patients with diabetic neuritis, some of whom of course have reached adult life.

A characteristic of diabetic neuritis is that the pain, lacerating in character, is much more severe at night than during the day. The pain may be superficial, or deep and aching, grinding, darting or lacerating in character. It prevents sleep and may disappear in the early morning hours only to recur the next night. Just as the symptoms are varied and do not follow a definite pattern, so the neurological signs are widespread with loss of tendon reflexes, positive Romberg, marked decrease in skin sensitivity and so forth.

#### **Vascular Etiology**

While the etiology of diabetic neuritis is unknown, the fact remains that true diabetic neuritis in almost all instances, appears after a period of uncontrolled diabetes, and is seen after months or years of inadequate control. This is in contradistinction to the cerebral damage that may occur from only short periods of hypoglycemia. Perhaps one of the reasons that diabetic neuritis is not seen so often in children as in the old age group is the length of time necessary to produce this condition. Also in nearly all instances in which diabetic neuritis occurs there are also marked vascular changes. Many authorities

feel that diabetic neuritis is definitely associated with vascular changes with resulting interference with the blood supply to the nerve fibers. Jordan, however, does not believe that this is true, and feels it is a result of the toxic effects of the metabolic disorders associated with hypoglycemia and ketonuria. The prevention of these complications, of course, is the best method of treatment.

### **Education of Diabetics**

If the neurologic complications are to be prevented, adequate control is essential, which means proper education; but the education of the juvenile diabetic is a most difficult problem. The diabetic in the first year or two of his disease will take great interest in his treatment, will administer his Insulin regularly, will watch his diet, will be a most cooperative patient. However, after a year or two and particularly when teenage comes, these children begin to get restless about their diabetes. They are tired of following a strict regimen, they are tired of being looked upon, in their own minds, as different from their fellow playmates and they have a definite antagonistic reaction to their disorder. This is manifested by sneaking of food, by inadequate control, by long periods of hyperglycemia and refusal to check their urine and often by failure to take Insulin.

### **Emotional Problems**

There are few teenage diabetics who do not develop some sort of an emotional reaction or emotional pattern to this situation. In the treatment of the juvenile diabetic we cannot be too careful in our evaluation of their emotional problem. We should be very tolerant of them and spend much time discussing their diabetes, so that even though they may go through a year or two of inadequate control, they will come out well balanced, well integrated individuals, with a future that we know will hold bright for them, if they will follow the regimens that have been outlined.

In trying to help them adjust to a regimen that will allow them to be as nearly like their friends as possible, we should perhaps

modify ideal programs in the handling of adolescents. It is a difficult period of life and diet freedom can be with good reason, increased; hoping that the need is a temporary one and that we will not establish a rule that will be carried beyond adolescent age. However, at the same time that the youngster demands more freedom and less regulation, he also begins to cooperate in other ways. He is more intelligent, we can reason with him, he responds to education about the diabetes more efficiently and he is beginning to become an adult; and as he is becoming an adult, we can look forward to a period following adolescence when better control returns and when stabilization of the diabetes becomes easier.

### **Importance of Control**

Much has been said about treatment of diabetes in the juvenile period, about the emotional pattern of the juvenile, and I feel this is justifiably important. However, it still remains that the diabetic must be brought under control, and this may be all that is necessary in the mild cases to bring about amelioration of the neurologic complications. In the moderate severe cases and in the severe patients good control is absolutely essential to prevent the development of disturbing features of diabetic neuritis. Many of the neurologic lesions are not reversible and always will persist in spite of excellent control.

The use of vitamin B<sub>12</sub> on an empirical basis has been advocated because of its effect in the combined degeneration of the cord as seen in pernicious anemia. However, rather carefully documented papers, particularly those of Schuman and Gillpin, have shown that this is without effect on the course of the disease. Likewise this is true of pregnant mammalian liver extract, and adenosine triple phosphate. Schuman and Gillpin showed these drugs to be without influence on the disease.

While the degenerative changes induced by uncontrolled diabetes are a serious threat to the life and health of the diabetic, the serious mental and emotional disorders induced by supposed therapeutic doses of Insulin are more frequent than is often

realized. Adequate diet and careful observation and control to prevent these permanent complications is urged.

#### Summary

The neurologic complications of diabetic children are more frequent than are realized; the damages to the brain from hyperinsulinism and its resultant hypoglycemia are real; numerous cases have been reported in the literature; a survey of your own hospital records will show that it does oc-

cur; so that every effort should be made to prevent hypoglycemic states in children. Since the brain of a child is much more susceptible to hypoglycemic states than that of an older person, the child must be allowed more freedom in his choice of food.

Neurologic changes brought about by metabolic disorders with hyperglycemia and ketonuria are not as frequent in children as in adults, but they do occur and can be prevented by adequate control.

## Blood and Plasma Volume Determinations By Means of Radioactive Iodinated Serum Albumin\*

J. W. Lewis, M.D.

COLORADO SPRINGS, COLORADO

*A description of an accurate, rapid method for blood volume determinations in surgical, traumatic and complex medical cases, using another of our newly-acquired atomic by-products.*

**B**LOOD volume determination has always been a much desired laboratory test and with the work of Evans using the dye dilution technic it became possible to estimate the blood volume very accurately. However, with the Evans blue test, there is some staining of tissue and oftentimes a production of hemolysis which interferes with the repeated use of the method.

When Crispell, in 1950, succeeded in binding  $I^{131}$  to human serum albumin it became quickly apparent that here was a method of mixing an easily identified substance with the total circulating blood and thereby finding the amount of dilution which has taken place. It has been found that radio iodine

is firmly bound to the phenylalanine group of plasma proteins. This tagged albumin mixes with all the circulating plasma. It is this dilution which we wish to measure. We add a stated volume of RISA to an unknown volume of blood and to a known volume of standard, then withdraw an equal amount from the patient. The decrease in radioactivity in the blood versus the standard will be directly proportional to the dilution in the patient's blood. Since we add a radiosubstance that involves only the plasma and therefore does not become transferred to the red cells we can readily spin the blood and by withdrawing the supernatant fluid we can very quickly find the plasma volume. At the same time if this is spun in a measured tube, the hema-

\*Presented at the Annual Session of the Colorado State Medical Society at Estes Park, September, 1956.

(Continued on page 816)



**2=8**



**KYNEX\*** ...  
SULFAMETHOXYPIRIDAZINE LEDERLE

**24 hour therapeutic  
blood levels with  
a single (1 Gm.) dose**

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• cuts sulfa dosage 75%

KYNEX Sulfamethoxypyridazine, the new, long-acting sulfonamide, now enables the physician to attain more effective sulfa therapy with these unequaled clinical advantages—

**LOW DOSAGE<sup>1</sup>**—only 2 tablets per day.

**RAPID ABSORPTION<sup>1</sup>**—therapeutic blood levels within the hour, blood concentration peaks within 2 hours.

**PROLONGED ACTION<sup>1</sup>**—10 mg. per cent blood levels that persist beyond 24 hours on a maintenance dose of 1 Gm.

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**GREATER SAFETY**—high solubility, slow excretion and low dosage help avoid crystalluria. No increase in dosage is recommended; the usual precautions regarding sulfonamides should be observed.

**CONVENIENCE**—the low maintenance dosage of 1 Gm. (2 tablets) per day for the average adult offers optimal convenience and acceptance to patients.

**TABLETS:** Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100.

**SYRUP:** Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

(1) Boger, W. P.; Strickland, C. S. and Gylfe, J. M.: *Antibiot. Med. & Clin. Ther.* 3:378 (Nov.) 1956.

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(Continued from page 813)

toerit can be determined and thereby a calculation of the total blood volume as a check.

I should like to explain the usual technic for the determination and then present a variation which I believe is more suitable for mass determinations, particularly by technicians who may not be technically trained in the isotope field. The standard technic is to dilute RISA with sterile saline or plasma in a bacterine bottle. Then, a measured amount is withdrawn from this bacterine bottle and injected into the patient's vein. A similar and accurately measured amount is again taken from the prepared standard and mixed with saline or plasma of a measured suitable volume, for example, 1,000 cc. By the time you have prepared the standard, sufficient time will have elapsed to allow complete mixing of the RISA. Blood is then drawn from the patient's opposite arm, the use of the other arm is done to prevent any contamination from the skin from the previous injection. The blood is then put in a heparinized tube and an exact amount of standard is placed in a similar tube. The tube with the standard is placed in a well counter and counted. We then place the patient's blood in the well counter and a similar count is made.

Using this formula we see the total blood volume is:

$$B.V. = \frac{\text{cts./min./cc. std.} \times \text{vol. std.}}{\text{Cts./min./cc. Blood (measured)}}$$

Also if we wish to spin the blood we then can determine the plasma volume according to this formula:

$$P.V. = \frac{\text{cts./min./cc. std. vol. std.}}{\text{ct./min./cc. Plasma (obs.)}}$$

If one wishes to have a double check on the method the blood volume can, of course, be done by formula:

$$B.V. = \frac{P.V.}{(1 - \text{Hematocrit} \times 0.9)}$$

In contrast to the Evans dye method this technic can be used over and over because

for a subsequent determination an amount of blood can be taken from the patient, its activity determined, and by this formula the new blood volume is established:

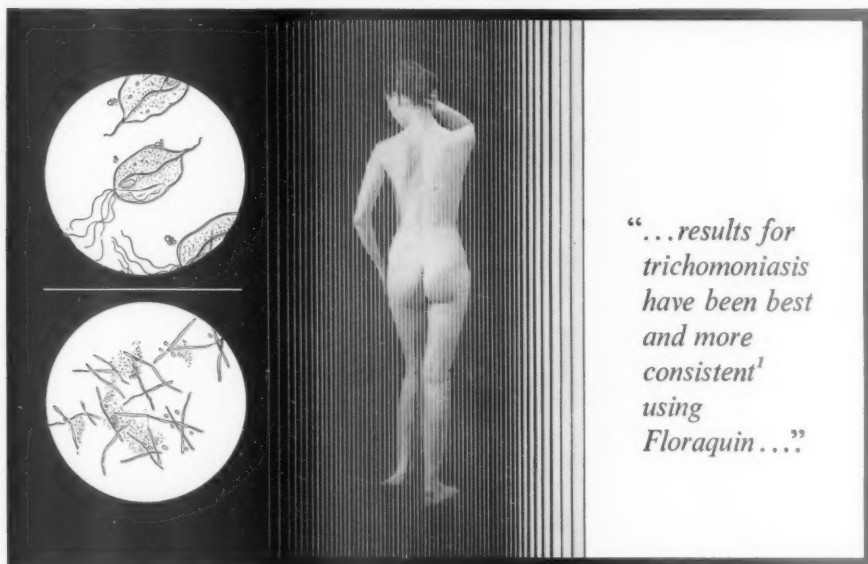
$$B.V. = \frac{\text{cts./min.} \times \text{cc. std.} \times \text{vol. std.}}{\text{cts./min/cc. blood measured} - \text{cts./min./cc. (previous blood sample)}}$$

In contrast with the method that I have described, I should like to present a variation which, as previously stated, is a bit more technician-adaptable.

The patient's weight is determined and from standard charts his or her normal blood volume is determined. From this determination we then, for example, assume that the patient's expected blood volume is to be 6,000 cc. We reduce this volume by a factor of 10 and therefore place 600 cc. in a container for a standard. We then add activity of 1/10 strength which we are going to give to the patient and both are then injected into their respective volumes. The 1/10 standard is injected into the 600 cc. The full activity is injected into the patient. The next step is to withdraw a given amount of standard and also withdraw a given amount of blood from the patient. The test tube containing the standard is placed into a well counter which is attached to a rate meter, the dial of which is calibrated in cc.'s. We then adjust the rate meter to read the exact expected blood volume of the patient in this example, 6,000 cc. Then the patient's blood is placed into the well counter. The meter will then read directly the number of cc.'s of blood the patient has in circulation.

In summary, the blood volume determinations are becoming increasingly important for the surgical patient, the pediatric patient, and traumatic and burn cases. The determination with the use of radioactive iodinated serum albumin is a very standard, safe procedure. The amount of activity used is small, thereby readily lending itself for repeated determinations which are so essential in the above-described pathological conditions. It is my plea that the physicians become aware of the importance of this procedure and use it increasingly in their practice.

EFFECTIVE, DEPENDABLE THERAPY FOR VAGINITIS



## Floraquin® eliminates trichomonal and mycotic infection; restores normal vaginal acidity

Leukorrhea is by far the most frequent symptom of vaginitis; trichomonads and monilia are the most common causes. Many authors have reported<sup>2</sup> trichomonal protozoa in the vagina of 25 per cent of obstetric and gynecologic patients. Increased use of broad spectrum antibiotics has resulted in a sharp rise in the incidence of monilial infections.

Floraquin effectively eradicates both trichomonal and monilial vaginal infections through the action of its Diodoquin® content. Floraquin also furnishes boric acid and sugar to restore the normal vaginal acidity which inhibits patho-

gens and favors the growth of protective Döderlein bacilli.

Pitt<sup>1</sup> recommends vaginal insufflation of Floraquin powder daily for three to five days, followed by acid douches and the daily insertion of Floraquin vaginal tablets throughout one or two menstrual cycles. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

1. Pitt, M. B.: Leukorrhea. Causes and Management, J. M. A. Alabama 25:182 (Feb.) 1956.
2. Parker, R. T.; Jones, C. P., and Thomas, W. L.: Pruritus Vulvae, North Carolina M. J. 16:570 (Dec.) 1955.

SEARLE

## The Washington Scene



A monthly news summary from the nation's capital by the Washington Office of the A.M.A.

The economy drive to the contrary notwithstanding, health spending by the Department of Health, Education, and Welfare for the fiscal year that began this July already is assured of surpassing last year's record by some \$33 million. This assumes, of course, that no further requests will be made by HEW for supplemental funds, a practice common in government for years.

Research programs were the most favored by legislators, many of whom spoke out against federal spending by other agencies. But when the health budget came up for debate, the economy oratory subsided.

In only one instance was a health program cut back. And, to the surprise of many, it occurred in the Senate which traditionally restores budget cuts originating in the House. A sum of \$45 million was voted, instead of the House-approved \$50 million, for grants to states for sewage treatment works construction. But then the Senate wrote in language permitting states to get their

maximum allotments a full year after the fiscal year ends.

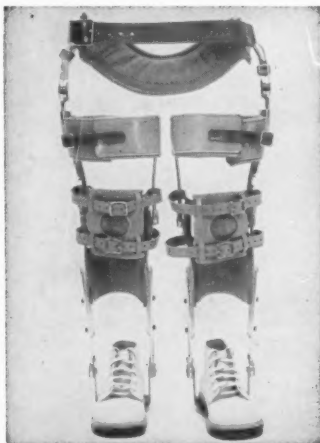
The Hill-Burton hospital construction program received \$3.8 million less than last year but only because the administration asked for \$121.2 million instead of the \$125 million appropriated last year.

The National Cancer Institute received the largest dollar increase of any health item in the budget. The increment was \$8 million over last year. The administration had asked for \$48.4 million, the House voted \$46.9 million, and the Senate raised this to \$58.5. It was finally compromised at \$56.4 million.

Congress obviously agreed with the views expressed by the Senate Appropriations Committee: "... the committee is fully aware that it is providing funds for cancer research, the outcome of which is unknown. On the judgment of those who are scientifically most competent, the committee is fully willing to risk the investment on the ground that the chance of a big payoff is a reasonable one. Such risks are inherent in research."

The Institute of Arthritis and Metabolic Diseases fared well, too, getting a total of \$20,385,000, compared with last year's \$17,885,000. And the Senate Committee charged the institute with taking leadership in research on effects of radiation on the human organism.

(Continued on page 824)



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Mr. Arthur R. Abbey, Cheyenne, Executive Secretary of the Wyoming State Medical Society and current Secretary of the Rocky Mountain Medical Conference, exchanges smiles of satisfaction with veteran Dr. Earl Whedon of Sheridan, formerly secretary for many years of the Wyoming Society, one of its past Presidents, and one of the founders of the R.M.M.C.



Mrs. George F. Lull and Dr. Lull, Secretary and General Manager of the American Medical Association, visit the exhibits during the R.M.M.C.

## Personalities at the Ninth Annual R

JACKSON LAKE LODGE



Herbert L. Harvey, M.D., Casper, 1957 R.M.M.C. chairman, left, visits during an intermission with the chairmen of the first three meetings of the Conference, Drs. Claude L. Shields, Salt Lake City, chairman 1939, George P. Lingenfelter, Denver, founder of the Conference and chairman in 1937, and Earl Whedon, Sheridan, co-founder and 1941 chairman.



Dwight H. Murray, M.D., left, of Napa, Calif., 1956-57 President of the American Medical Association, arrived in the Jackson Lake Lodge to register for the R.M.M.C. and is introduced to Drs. Joe Hellewell, Wyoming President, H. B. Anderson, Wyoming President-Elect, by Dr. W. Andrew Bunten, right, of Cheyenne, one of Dr. Murray's hosts.

Wyoming  
mountain  
Dr.  
of the  
founders

Three Denver visitors take a breather just outside the Jackson Lake Lodge during one of the intermissions; left to right, Drs. Douglas W. Macomber, Scientific Editor of the Rocky Mountain Medical Journal; George H. Gillen, formerly a five-year member of the R.M.M.C. Continuing Committee, and L. Clark Hepp, currently a member of the Continuing Committee.



tary and  
ical As-  
R.M.M.C.

A pair to draw to! The daddies of the R.M.M.C., Drs. Earl Whedon of Sheridan, Wyoming and George P. Lingenfelter of Denver.



# Annual Rocky Mountain Medical Conference

SON LAKE LODGE, WYOMING



resident of  
lake Lodge  
Hellewell,  
ct, by Dr.  
ay's hosts.

Left, Dr. Joseph S. Hellewell, Evanston, President, Wyoming State Medical Society, and Dr. Claude S. Beck, Professor of Cardiovascular Surgery, Western Reserve University, who was one of the R.M.M.C. Guest Speakers.



Three Wyoming Presidents. Left to right, Drs. L. Harmon Wilmoth, President-Elect, chosen at the 1957 House of Delegates meeting during the R.M.M.C. at Jackson Lake Lodge, Joseph S. Hellewell, Evanston, outgoing President who served during the 1956-57 year, and H. B. Anderson of Casper, incoming President for the 1957-58 year.

(Continued from page 818)

The Mental Health Institute's spending has been going steadily upward, and this year it was given another boost with a final appropriation of \$39,217,000, an increase of about \$4 million. Other research totals for the current year: National Heart Institute, \$35,936,000; Neurology and Blindness Institute, \$21,387,000; Allergy and Infectious Disease Institute, \$17,400,000.

On only one score did the research advocates lose out. The House view prevailed in conference on the setting of a 15 per cent ceiling on additional overhead costs allowed schools and other institutions getting federal grants. This question which drew considerable attention in hearings is likely to be reopened. Congress wants a General Accounting Office study by the end of this year.

In voting a \$5 million increase (to \$22,592,000) for general public health assistance to the states, Congress was reaffirming its support of helping local health departments increase their professional staffs and broaden their services. The Senate Committee report contained this significant language:

"... with a population increase of more than 20 million during the past decade, there are no more organized health departments than there were ten years ago. This means that 18 million people are living in areas with no full-time organized community health services, and

millions more live in areas where such services are only fragmentary."

A few days later, the Public Health Service announced plans for a broad survey of rural health needs, particularly in sparsely settled areas. It picked for its first study Kit Carson County, Colo., an area known for its scattered farm population, low income level and adverse climatic conditions.

#### Capital Notes:

The President has signed into law a two-year revision of the doctor draft law permitting selective call-up of physicians to age 35 if they were deferred from regular draft service to complete professional training. . . . The poliomyelitis vaccine act expired July 1 with all but \$400,000 of \$53.6 million taken up by states for inoculation programs. An estimated 29 million children and pregnant women received 70 million injections. . . . The Public Health Service has conferred with the American Medical Association on medical manpower plans in event of an epidemic of the new Far East influenza. . . . The National Library of Medicine no longer is lending books and other material over the counter to individuals; requests must be channeled through other libraries. . . . The administration bill on federal workers health insurance has been introduced; it combines both basic and major medical coverage.

**P. A. F.  pH<sup>4</sup>**

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# ORGANIZATION

Utah



The completed program for the Annual Scientific Sessions of the Utah State Medical Association September 5th, 6th, and 7th was announced by the Scientific Program Committee.

An unusual array of scientific guest speakers have accepted invitations and will be in Salt Lake City for the three-day event.

The House of Delegates meetings will be held in the Junior Ballroom of the Hotel Utah. This year the House will convene at 9:00 a.m. September 4 and conclude its sessions with a meeting 2 p.m. September 5.

A feature of the meetings will be the appearance of Gunnar Gundersen, M.D., LaCrosse, Wisconsin, President-elect of the American Medical

Association. Dr. Gundersen will speak on a subject pertinent to the medical profession, which will be televised and broadcast over a network of forty-four stations in the Intermountain Region. Mrs. Paul C. Craig, national President of the Woman's Auxiliary, will also be in Utah for the three-day meeting.

Another feature of the meetings will be the Annual Meeting of the Medical Service Bureau of the Utah State Medical Association, Inc. (Blue Shield), Wednesday evening, September 4th, at the Newhouse Hotel. All members of the Association are invited to be guests at this business meeting, which will be preceded by a social hour at 6:00 p.m. and dinner at 7:30 p.m.

Friday evening, September 5th, will be devoted to dinners to be given by the various specialty societies. Appearing at these dinners will be the guest speakers.

A special event for the meeting will be the showing of two medical legal films, "The Medical Witness" and "The Doctor Defendant." The latter of these two films has just been completed, and will be shown in Utah for the first time since its premier showing at the AMA meetings in New York in June. The Utah Bar Association has been invited to participate with the Medical Association in this meeting, Thursday afternoon at 4:00 p.m.

## *Sixty-Second Annual Scientific Sessions Utah State Medical Association*

SEPTEMBER 5, 6, 7, 1957

HOTEL UTAH

### THURSDAY MORNING SESSION

#### SEPTEMBER 5

##### "Surgery Day"

8:00—Registration (all day).

8:00—Movie: "Stress and the Adaptation Syndrome."

8:45—Welcoming Address.

Presiding: James Z. Davis, M.D., President, Utah State Medical Association

9:00—"Splenectomy—Indications, Complications and Results," George E. Cartwright, M.D., Salt Lake City, Utah.

9:30—"The Differential Diagnosis and Treatment of Small Bowel Tumors," H. William Scott, Jr., M.D., Nashville, Tennessee.

10:00—"Intestinal Obstruction in the Newborn," Willis J. Potts, M.D., Chicago, Illinois.

10:30—Recess to visit exhibits.

11:00—Symposium, "Non-Toxic Disease of the Thyroid." Sponsored by the Department of Surgery, University of Utah College of Medicine.

Moderator: Philip B. Price, M.D., Dean, College of Medicine.

Members: William R. Christensen, M.D.; Kenneth B. Castleton, M.D.; Frank H. Tyler, M.D.; Shelley A. Swift, M.D., St. Mark's Hospital, Salt Lake City.

12:10—Luncheon, Starlite Roof Garden. Surgical panel discussion.

Moderator: Wallace S. Brooke, M.D., University of Utah College of Medicine.

Panel Members: George E. Cartwright, M.D.; H. William Scott, Jr., M.D.; Willis J. Potts, M.D.; E. R. Dumke, M.D., Surgeon, Ogden; Philip B. Price, M.D.

(Continued on page 828)



# NEW

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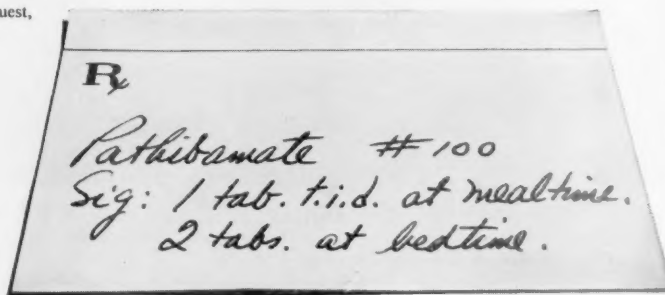
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• "In the patients with functional disturbances of the colon with a high emotional overlay, this has been to date a most effective drug."<sup>5</sup>

**References:** 1. Borrius, J. C.: *M. Clin. North America*, in press, 1957. 2. Gillette, H. E.: *Internat. Rec. Med. & G. P. Clin.* 169:453, 1956. 3. Pennington, V. M.: *J.A.M.A.*, in press, 1957. 4. Cayer, D.: Prolonged Anticholinergic Therapy of Duodenal Ulcer. *Am. J. Dig. Dis.* 1:301-309 (July) 1956. 5. McGlone, F. B.: Personal Communication to Lederle Laboratories. 6. Texter, E. C., Jr.: Personal Communication to Lederle Laboratories. 7. Bauer, H. G. and McGavack, T. H.: Personal Communication to Lederle Laboratories.

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## GUEST



**WILLIS J. POTTS, M.D.**

*Professor of Pediatric Surgery, Northwestern Univ. School of Medicine; Surgeon-in-Chief, The Children's Memorial Hospital, Chicago*

**HOST**—Adolph M. Nielsen, M.D.



**H. WILLIAM SCOTT, JR., M.D.**

*Professor of Surgery, Vanderbilt Univ. School of Medicine; Surgeon-in-Chief, Vanderbilt Univ. Hospitals, Nashville, Tennessee*

**HOST**—Wallace S. Brooke, M.D., Ph.D.



**SAMUEL P. MARTIN, M.D.**

*Professor of Medicine, Chairman, Department of Medicine, Univ. of Florida School of Medicine, Gainesville, Florida*

**HOST**—T. Ray Broadbent, M.D.



**THOMAS M. DURANT, M.D.**

*Professor and Head, Department of Medicine, Temple Univ. Medical Center, Philadelphia, Pennsylvania*

**HOST**—Sherman W. Thorpe, M.D.

## S P E A K E R S



**JOHN F. MCCREARY, M.D.**

*Professor and Head, Department of Paediatrics, Univ. of British Columbia; Paediatrician-in-Chief, Health Centre for Children, Vancouver, B. C., Canada*

**HOST**—James F. Bosma, M.D.



**WENDELL H. HALL, M.D., Ph.D.**

*Chief, Laboratory Service, Veterans Administration Hospital; Asso. Professor of Medicine and Microbiology, Minnesota Univ. Medical School, Minneapolis, Minnesota*

**HOST**—Ralph L. Tingey, M.D.



**ROY G. HOLLY, M.D., Ph.D.**

*Professor and Head, Dept. of Obstetrics and Gynecology, University of Nebraska College of Medicine, Omaha, Nebraska*

**HOST**—Emil G. Holmstrom, M.D.



**ROBERT A. HINGSON, M.D.**

*Professor of Anesthesiology, School of Medicine, Western Reserve Univ., Cleveland, Ohio*

**HOST**—Scott M. Smith, M.D.

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(Continued from page 825)

## THURSDAY AFTERNOON SESSION SEPTEMBER 5

Presiding: Rulon F. Howe, M.D.,  
President, Ogden Surgical Society

2:00—House of Delegates closing session—  
Junior Ballroom, Hotel Utah.

2:00—"Hernia During Infancy: Inguinal,  
Umbilical, Diaphragmatic," Willis J. Potts,  
M.D.

2:30—"The Management of Gastric Ulcer,"  
H. William Scott, Jr., M.D.

3:00—"The Present Concept in the Manage-  
ment of Pregnancy Toxemias," Roy G.  
Holly, M.D., Ph.D., Omaha, Nebraska.

3:30—Recess to visit exhibits.

4:00—Special Convention Feature—Films.  
"The Medical Witness" and "The Doctor  
Defendant." Special Guests—Members of  
Utah State Bar.

## THURSDAY EVENING

5:30-7:00—President's Reception, Alta Club.

7:15—President's Banquet, Lafayette Ball-  
room, Hotel Utah. Featured speaker: Gun-  
nar Gundersen, M.D., President-elect, Amer-  
ican Medical Association.

Dancing, Junior Ballroom. Sponsored by  
Woman's Auxiliary to the Utah State Med-  
ical Association. (Informal.)

## FRIDAY MORNING SESSION SEPTEMBER 6

Presiding: Reed W. Farnsworth, M.D.,  
President-elect, Utah State Medical  
Association

8:00—Registration (all day).

8:00—Movies: "Radioisotopes—Their Appli-  
cation to Humans," "Glaucoma—What the  
General Practitioner Should Know."

9:00—"Recent Progress in Paediatrics," John  
F. McCreary, M.D., Vancouver, B. C., Can-  
ada.

9:30—"The Management of Benign Disor-  
ders of the Cervix and Vagina," Roy G.  
Holly, M.D., Ph.D.

10:00—"The Present Status of Obstetric An-  
esthesia and Analgesia," Robert A. Hingson,  
M.D., Cleveland, Ohio.

10:30—Recess to visit exhibits.

11:00—Symposium, "Can Every Doctor's Of-



fice Be a Cancer Screening Clinic?" Sponsored by the Department of Obstetrics and Gynecology, University of Utah College of Medicine.

Moderator: Emil G. Holmstrom, M.D.

Members: William R. Christensen, M.D.; Cyril Fullmer, M.D.; Irving Ershler, M.D.

12:10—Luncheon, Empire Room. Panel Discussion.

Moderator: Morgan S. Coombs, M.D.

Panel Members: Roy G. Holly, M.D., Ph.D.; Robert A. Hingson, M.D.; Wendell H. Hall, M.D., Ph.D.; Emil G. Holmstrom, M.D.; Lindsay R. Curtis, M.D., Ogden.

#### FRIDAY AFTERNOON SESSION SEPTEMBER 6

Presiding: George R. Buck, M.D.

President, Colorado State Medical Society

2:00—"Not All Psychotherapy Requires a Psychiatrist," C. H. Hardin Branch, M.D., Salt Lake City.

2:30—"Recognition and Management of Pericardial Disease," Thomas M. Durant, M.D., Philadelphia, Pennsylvania.

3:00—"Cellular Mechanisms Involved in Resistance to Infections," Samuel P. Martin, M.D., Gainesville, Florida.

3:30—Recess to visit exhibits.

4:00—"The Treatment of Urinary Infections," Wendell H. Hall, M.D., Ph.D., Minneapolis, Minnesota.

4:30—"The Treatment of Anemia With the Elements," George E. Cartwright, M.D.

#### FRIDAY EVENING

6:30—Dinner meetings sponsored by the following societies with guest speakers in attendance: Intermountain Pediatric Society, Salt Lake Surgical Society, Utah Chapter American Academy of General Practice, Utah State Society of Anesthesiologists, Utah State Obstetrical and Gynecological Society, Utah Society of Internal Medicine.

#### SATURDAY MORNING SESSION SEPTEMBER 7

Presiding: Hoyt B. Woolley, M.D.,

President, Idaho State Medical Association

8:00—Registration.

8:00—Movie: "Diagnosis and Management of Acute Abdominal Problems."

9:00—"The Management of Staphylococcal

for AUGUST, 1957



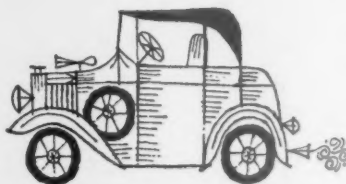
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Infections With Antibiotic Combinations," Wendell H. Hall, M.D., Ph.D.

9:30—"Therapy of Resistant Congestive Failure," Thomas M. Durant, M.D.

10:00—"Emergency Oxygen in the Doctor's Satchel, for Use in Cardiac Emergencies, Resuscitation in Asphyxia, Respiratory Obstruction, Industrial Explosions, and Major Disasters," Robert A. Hingson, M.D.

10:30—Recess to visit exhibits.

11:00—"Agammaglobulinemia," Samuel P. Martin, M.D.

11:30—"Respiratory Emergencies in Infancy and Childhood," John F. McCreary, M.D.

12:00—"School Adjustment in the Adolescent," C. H. Hardin Branch, M.D.

12:30—Adjournment.

### News Briefs

A Utah physician was elected to one of the highest honors in the American Medical Association by the House of Delegates at their annual meetings in New York, June 3-7, 1957.



Dr. George M. Fister, prominent physician and surgeon of Ogden, Utah, was elected June 6 to the Board of Trustees of the American Medical Association, at the AMA's annual convention.

For the past eight years he has been Utah's

ROCKY MOUNTAIN MEDICAL JOURNAL

delegate to the AMA House of Delegates. He is Past President of the Utah State Medical Association, and an organizer and Past President of the Ogden Surgical Society.

A native of Logan, Dr. Fister was a graduate from the Utah State Agricultural College and obtained his medical degree in 1919 from Rush Medical College, Chicago. After interning in Henry Ford Hospital, Detroit, he engaged in general practice for four years in Brigham City, Utah.

He then returned to the East for special studies in the field of urology, and also did postgraduate work in London and Vienna. He has been practicing in Ogden as a specialist in urology since 1928.

Dr. Fister is a former member of the Board of Trustees, USAC, and is now on the Board of Regents of the University of Utah.

He is a member of the University's Medical College Committee, and has been one of the principal backers of the university's medical center.

For several years he has been clinical lecturer in surgery in the Utah College of Medicine. He has written thirty-four scientific papers on various types of genito-urinary tract diseases, which have appeared in national publications. He is a member of the Urological Society of America.

This is the first time a doctor from the Intermountain area has ever been elected to the Board of Trustees of the AMA.

## Wyoming



### 54th ANNUAL MEETING WYOMING STATE MEDICAL SOCIETY

Moran, Wyoming

June 15, 16, 1957

#### PROCEEDINGS

SATURDAY AFTERNOON

June 15, 1957

The business meeting of the House of Delegates of the Wyoming State Medical Society, its 54th annual meeting, was called to order by President Dr. J. S. Hellewell in the Explorers' Room, Jackson Lake Lodge, at 2:00 o'clock p.m., June 15, 1957.

Dr. Hellewell called Dr. Benjamin Gitlitz, Secretary, to read the minutes of the last annual meeting. Dr. Gitlitz stated that the minutes had been printed in the Rocky Mountain Medical Journal and distributed in the Delegates' Packet.

for AUGUST, 1957

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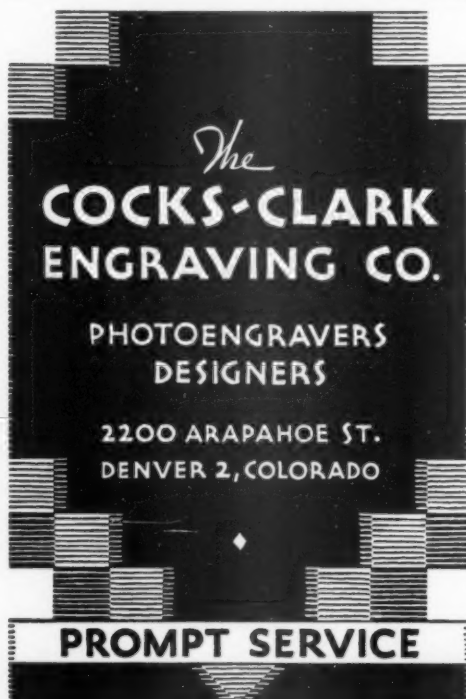
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There were two groups of minutes, one taken at Moran, June 29, 30 and July 1, 1956, and one from the interim meeting at Casper, November 18, 1956. It was moved by Dr. Wilber Hart and seconded by Dr. Joseph A. Gautsch that the minutes of the annual meeting at Moran and the interim meeting at Casper be approved as printed. Motion carried.

After the Credentials Committee report and roll call by Dr. Gitlitz, Secretary, it was announced that a quorum was present according to the Society's Constitution.

Under old business, Dr. Hellewell first mentioned the Constitution and By-laws and stated that there had been a tremendous amount of work done by Dr. H. B. Anderson of Casper and his Committee on the revision of the Constitution and By-laws, and at the meeting of the House of Delegates at Moran, a year ago, had adopted the new Constitution and By-laws unanimously, but that it had to lay over for a full year before its final acceptance by the House of Delegates. Whereupon Dr. H. B. Anderson was called upon to take over.

After explanatory remarks by Dr. Anderson, he moved that the new Constitution and By-laws be accepted as printed in the Delegates' Packet. The motion was seconded by Dr. Joseph A. Gautsch. Dr. J. S. Hellewell stood corrected when Dr. Earl Whedon stated that the minutes of the last annual meeting did not state that the House of Delegates had adopted the new Constitution and By-laws. Dr. Whedon then asked that Article II of the old Constitution and Article II of the proposed Constitution be read. These Articles were read by Dr. Gitlitz. Dr. Whedon then moved that in lieu of the new section, Article II, that the Society revert back to the old Article II and adopt it as the purposes of the Wyoming State Medical Society. After some discussion, Dr. Whedon moved that his motion be considered as an amendment to the original motion by Dr. H. B. Anderson. Dr. Whedon's motion to amend was seconded and upon an oral vote was defeated. Whereupon Dr. Whedon called for a standing vote and upon such standing vote his motion was defeated 18-6. Whereupon a standing vote was taken on Dr. Anderson's motion to adopt the new Constitution and By-laws, which motion was carried 23-2, and it was announced that the proposed Constitution and By-laws were now the Constitution and By-laws of this Society.

The next order of business was the report on the action taken in connection with the Medical Practice Act by Dr. Norman Black. Dr. Hellewell complimented Dr. Black and his committee for the successful revision of the Act during the last session of the Wyoming Legislature. Dr. Black stated that his report and a copy of the Medical Practice Act were included in the Delegates' Packet. Dr. Black moved adoption of the report as included in the Packet. Seconded by Dr.

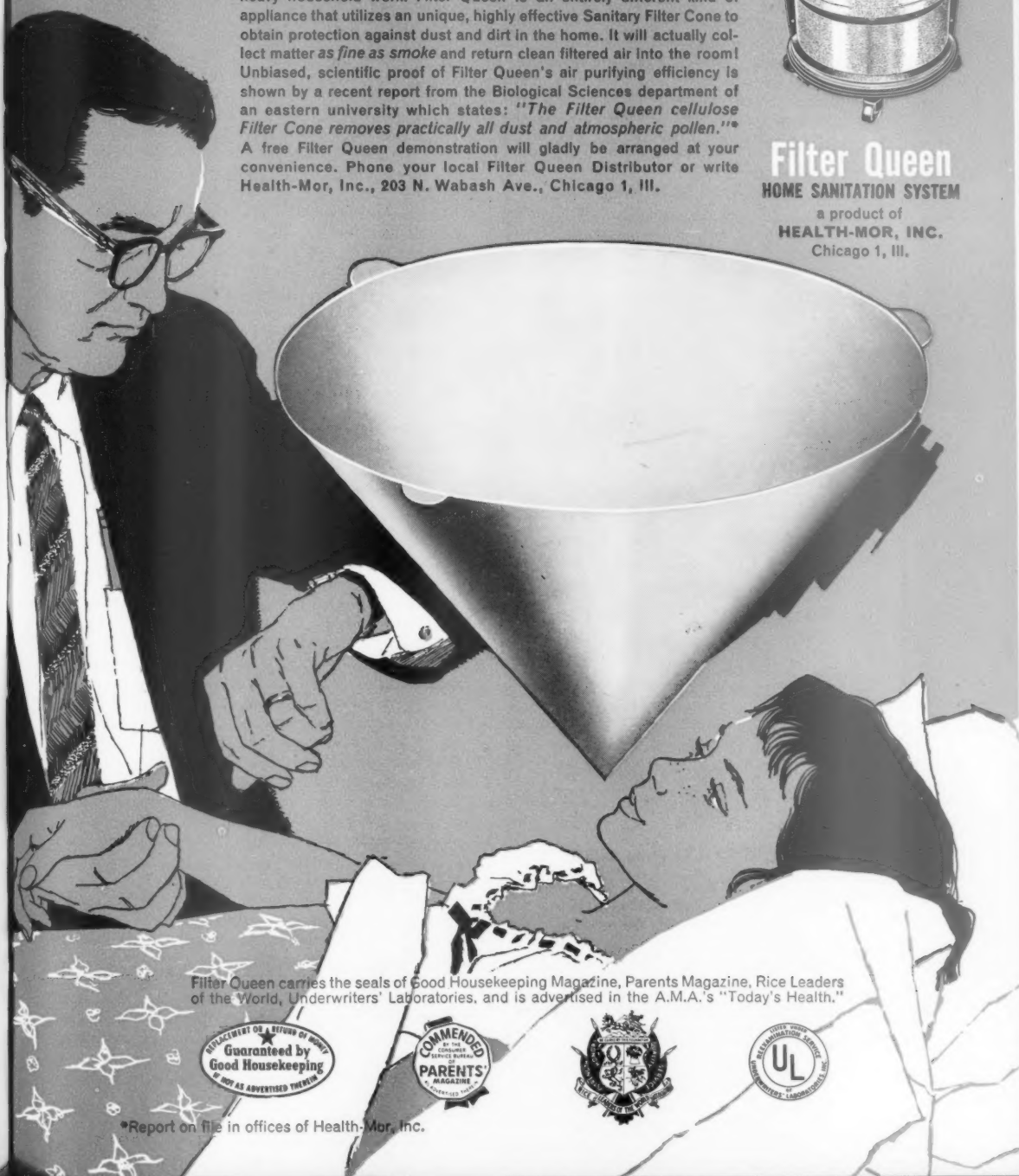
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Sullivan. Dr. Sullivan spoke in favor of the passage of the motion. Motion carried unanimously.

Dr. Hellewell stated that Dr. C. D. Anton, Treasurer, not being present, his report would be passed, and Secretary Gitlitz was asked to give his report. Dr. Gitlitz stated that the Packet was really his report and that Mr. Abbey, or his office, was responsible for the greater share of the report, which was a great help to him.

Dr. Hellewell then called for the report of the Delegate to the AMA, Dr. A. T. Sudman. Dr. Sudman opened his remarks by saying that he had copies of all the resolutions passed at the New York meeting of the AMA and would be glad to show them to, and discuss them with, any member interested. Dr. Sudman reported on the meeting in New York and also the House of Delegates meeting at Seattle, Washington. Concerning the Seattle meeting, Dr. Sudman discussed Medical Ethics, Veterans' Medical Care, Radioactive Isotopes, Continuance of AMA Interim Sessions, Hospitalization of Patients With Alcoholism, and a report of the Committee on Medical Practices. Dr. Sudman stated that there was very little discussion of Medical Ethics at the New York meeting and the report was accepted and approved in its entirety, without amendments or alterations. Dr. Sudman stated that Veterans' Medical Care was discussed at length at the Seattle meeting and again at the New York meeting. Dr. Sudman stated that the AMA had reaffirmed its stand that treatment in Veterans' Hospitals should be limited to service-connected disability, unless the patient signs a statement that he is a pauper or unable to pay for medical care. Radioactive Isotopes were discussed at both meetings, and it was recommended by the AMA that they be placed in the hands of people acquainted with radioactive medication. It was decided in New York that the Interim Sessions were of much value to the activities of the AMA and would be continued with both clinical and scientific programs. Since alcoholism is becoming more and more serious, Dr. Sudman stated that this problem was discussed at both meetings, and it was recommended that patients receive the best that can be offered to them in psychiatric as well as medical lines. Dr. Sudman spoke on AMA opposition to government intervention that is occurring in medicine, as expressed by Dr. Dwight Murray. He also discussed the AMA program regarding freedom of choice of physicians in connection, particularly, with the UMWFA Welfare Fund, and generally with all types of industrial medicine. Dr. Sudman stated that the House of Delegates, by a voice vote, and by a very large margin, went on record as being opposed to placing themselves under the Social Security Act. He stated that they based this action upon the fact that the medical profession is alone in standing

for freedom in our government. Dr. Sudman then discussed TV advertising of medical and drug products.

Dr. Hellewell thanked Dr. Sudman for an excellent report and then called on Dr. Bernard Sullivan who gave some interesting sidelights in connection with the New York meeting.

The next order of business was the report of Mr. Arthur R. Abbey, Executive Secretary, who stated that the financial or fiscal portion of his report was in the Packet. Mr. Abbey enumerated the activities of the Society during the last fiscal year and stated that it was the busiest he has had during his eleven years' association with the Society. Mr. Abbey then introduced Mr. Ralph Marshall, the Executive Secretary of the New Mexico Medical Society; Mr. Harvey Sethman, Executive Secretary of the Colorado State Medical Society. Dr. Anderson moved the adoption of Mr. Abbey's report as it appeared in the Packet. Seconded by Dr. Sudman. Motion carried.

Dr. H. B. Anderson presented the following resolutions, stating that the first resolution was presented by the Northwest District Society.

No. I. **Resolved:** That the Wyoming State Medical Society go on record as favoring a policy whereby all medically indigent be given public polio vaccine at no charge for services, but that no free clinics be held. (Recommended do not pass.)

No. II. **Resolved:** That the Wyoming State Medical Society go on record as opposing the publications of articles by local physicians in local media, for lay consumption.

No. III. **Resolved:** As it has been recommended by the Council of the Wyoming State Medical Society that the House of Delegates provide for a compulsory orientation program for all new members of the Wyoming State Medical Society, to be given at the time of the State Meeting or at other times as convenient.

Dr. Anderson stated it was the recommendation of the Committee that the resolution not be passed. Dr. L. Harmon Wilmoth, Chairman of the Public Relations Committee, discussed the second resolution. Dr. John H. Froyd discussed Resolution No. II as well as Resolution No. I.

Dr. Hellewell interrupted the proceedings at this point to introduce Mrs. A. T. Sudman, President of the Woman's Auxiliary to the Wyoming State Medical Society, who introduced Mrs. Paul Craig, President of the Woman's Auxiliary to the AMA, who addressed the House of Delegates briefly.

Mrs. Sudman, as President of the Woman's Auxiliary to the Wyoming State Medical Society, then gave her report for the year 1956-1957, which is included in the report of Dr. Wilber Hart, Chairman of the Advisory Committee to the Woman's Auxiliary.

Dr. Hellewell then called on Dr. Franklin D. Yoder for a report on his recent trip to Europe as a member of the United States delegation to the World Health Organization, a group of eighty-eight nations which meets every year and takes

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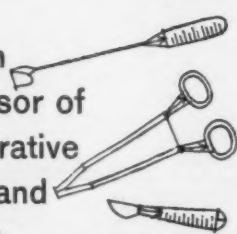
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action on world health problems. He stated that the meeting this year was held at Geneva, Switzerland, headquarters of the World Health Organization. He also stated that the World Health Organization had accepted an invitation to hold its next annual meeting in the United States.

Dr. Yoder then discussed the problem of public immunization and stated that he felt the Wyoming State Medical Society should adopt some policy in connection with it. He also stressed the obligation of Wyoming physicians to the people of the State in public health matters such as immunization. He emphasized the public relations benefits which would accrue to the medical profession in taking a positive attitude toward the poliomyelitis vaccine program. He stressed that Wyoming had not used its share of poliomyelitis vaccine and the fact that there was a great backlog of unimmunized people in the entire nation.

Dr. Hellewell then called for Committee Reports, and it was decided to approve all of the noncontroversial reports at one time after the reports had been received. Dr. Sullivan stated that the Chairman of the Advisory Committee to Selective Service had called him and advised that his report was in error in that the doctor draft law had been extended for another two years so it will be necessary to continue that committee. Dr. Hellewell stated that he felt Dr. Anderson would have the continuance of this committee in mind when committee appointments were made and that the committee will be retained.

Dr. Hellewell then called for additional remarks of committee chairmen as the Committee Reports were enumerated as follows:

Committee for Professional Review. Dr. Lowe had no remarks.

Advisory Committee to Selective Service. Dr. Sullivan previously had remarked upon the information given him by Dr. Zuckerman.

Rocky Mountain Medical Conference. Dr. Hellewell commended Dr. Harvey and his committee for the work done in arranging for this conference.

Public Relations Committee. Dr. Wilmoth stated he had copies of articles that had been prepared for distribution, also that he had the first article on the rural health series. He also stated he had a booklet sent by Dr. Yoder's office that is available for distribution. He also stated that such a meeting as this one should have widespread publicity.

Maternal Welfare. Dr. Sullivan had no remarks.

Child Health Committee. Dr. Harris was not present and Dr. Sullivan urged everyone to read the report.

Cancer Committee. Dr. Lowe had nothing further.

Mental Health Committee. Dr. Herrold had nothing to add.

Medical Economics Committee. Dr. Brendan Phibbs remarked concerning closed panel practice. Dr. Phibbs moved that a special committee be appointed to study the whole matter thoroughly and bring back a report to the interim meeting of the House of Delegates specifically stating the attitude of the Wyoming State Medical Society on panel practice. Dr. Phibbs then discussed free choice by welfare patients, and fee schedule by the Blue Shield Committee. The motion was seconded by Dr. Haigler. After discussion by Dr. Sudman, Dr. Sullivan and Dr. Whedon suggested that Dr. Phibbs change his motion to refer it to the new Medical Economics Committee. Dr. Phibbs then amended his motion to conform with Dr. Whedon's suggestion. Dr. Haigler, who seconded the original motion, agreed to the amendment and the motion was carried.

Dr. Phibbs then made the same motion with reference to welfare, that a uniform procedure be worked out for welfare cases by our new Medical Economics Committee with specific instructions to report back to the interim session of the House of Delegates. Seconded by Dr. Blumenstock. Motion carried.

Advisory Committee to the Woman's Auxiliary. Dr. Hart stated that because of geographical problems he was unable to keep in contact

with the President of the Woman's Auxiliary and suggested that this fact be considered in the appointment of the new committees. Dr. Hellewell then commended Mrs. Sudman on her report, and Dr. Hart asked to have Mrs. Sudman's report included in his report.

Public Policy and Legislation. Dr. Black discussed the Key-Man program of the AMA.

State Institutions Advisory Committee. Dr. Whalen called attention to the paragraph about the Wyoming Tuberculosis Sanitarium as contained in his report. Dr. Yoder advised that the mobile x-ray unit was reactivated.

Council on National Emergency Medical Service.

Judicial and Advisory Committee. Dr. Haigler had nothing further.

American Medical Education Foundation.

Dr. Hellewell reported for the Councilors, stating that during the past year they held three meetings and tried to keep all members informed by mimeographed sheets of what has been transpiring and what has been going on in the Council meetings. Dr. Hellewell stated that he would like to have Mr. Abbey read the minutes of the Council meeting held just prior to the opening of this session of the House of Delegates, which was done.

Necrology Committee. Dr. Yoder read the names of Wyoming physicians who have died since the last meeting, as follows: Hoyer John

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Arbogast, Rock Springs; James G. Stewart, Sheridan; George Palmer Johnston, Cheyenne; George W. West, Afton; Claude Raffl, Basin; and Patryck McCrann, Rock Springs. The House of Delegates then stood in silence.

Gottsche Estate Committee. Dr. Yoder remarked briefly on the activities of the Committee. He also announced that a bid letting for the Gottsche Foundation Institute and the Hot Springs County Memorial Hospital was scheduled for June 27. Dr. Yoder also requested the cooperation of all Wyoming physicians in referring appropriate patients to this center for rehabilitation after its opening in the latter part of 1958. He also requested that physicians be ready to render consultation service to the Gottsche Foundation when called upon by Dr. Charles Flint, the Medical Director.

Advisory to the Easter Seals Committee.

Poliomyelitis Committee.

Dr. Sullivan moved that the reports of the committees just enumerated be accepted and

approved. Seconded by Dr. Holmes. Motion carried.

WHEREUPON the House of Delegates was recessed at 4:55 p.m., June 15, 1957, until 10:00 a.m., June 16, 1957, at which time the following proceedings were had, to-wit:

#### SUNDAY MORNING

June 16, 1957

The House of Delegates of the Wyoming State Medical Society reconvened at 10:00 o'clock, a.m., in the Explorers' Room, Jackson Lake Lodge, having been called to order by President Dr. J. S. Hellewell. The roll was called by Dr. Benjamin Gitlitz, after which Dr. Hellewell announced that a quorum was present.

Dr. Hellewell called upon Dr. Barber for the report of the Auditing Committee, and Dr. Barber stated that he and Dr. Barrett had reviewed the checking account of the Secretary and that everything was in order. It was moved

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and seconded that the Auditing Committee report be accepted. Motion carried.

The next order of business was the report of the Time and Place Committee. Dr. Anderson reported that it was the recommendation of the Time and Place Committee that the next annual meeting be held at the Jackson Lake Lodge, on June 9, 10, 11 and 12, 1958. After remarks by Dr. Sullivan, it was stated by Mr. Abbey that if the House of Delegates wanted to come back to Jackson Lake Lodge in 1959 that the decision to do so would have to be made right now in order to secure the reservations. Dr. Haigler moved that the report be accepted and approved. Dr. Holmes seconded the motion. Motion carried.

Dr. Hellewell then called upon Dr. Donald Becker, Chairman of the Laboratory and Blood Bank Committee, for his report. Dr. Hellewell asked if there were any additions to the report. There being none, he then called for the report of the—

Historical Committee, Dr. Francis A. Barrett, Chairman. There were no further remarks by Dr. Barrett.

Cardiovascular and Renal Diseases Committee, Dr. A. J. Allegretti, Chairman. Nothing further by Dr. Allegretti.

Arthritis Committee, Dr. Myron Harrison, Chairman.

Blue Shield Fee Schedule Committee, Dr.

Robert H. Bowden, Chairman. Dr. Bowden was not present.

Committee on Industrial Medicine, Dr. R. H. Reeve, Chairman. Dr. Hellewell stated that at Dr. Reeve's insistence, the Committee was re-instated but that he thought that the Committee should not be continued, and stated that probably the Medical Economics Committee could take over. Dr. Anderson stated that he was on the Committee when they, the members of the Committee, recommended that it be abolished. Dr. Blumenstock moved that the Committee be abolished. Seconded by Dr. Jeffrey. Motion carried.

Dr. Hellewell then called for a motion to accept the Committee reports submitted at this session of the House of Delegates. Dr. Hart moved the reports be accepted. Seconded by Dr. Sullivan. Motion carried.

Resolutions Committee report, Dr. Anderson, Chairman. Dr. Anderson stated that action should now be taken on resolutions submitted at the prior session and stated that Resolution No. 1 was ready for action by the House of Delegates; that the Committee recommended that it do not pass. Dr. Gautsch spoke in favor of the resolution. Dr. Yoder spoke against the resolution. After further discussion it was moved by Dr. Giovale and seconded by Dr. Whedon that the resolution be rejected. Motion carried and the resolution was rejected.



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Dr. Anderson read the second resolution. It was moved by Dr. Knapp and seconded by Dr. Holtz that the resolution be accepted and approved. It was then brought out that the resolution did not propose to prohibit the publication of public relations articles by any local society or the state society, but merely referred to the publication of articles by individuals. Motion carried.

The third resolution was then read by Dr. Anderson. Dr. Hellewell stated that the Council, in the last meeting in April, was in favor of adopting such a program. After discussion it was moved by Dr. Blumenstock and seconded by Dr. Jeffrey that the resolution be adopted. Motion carried.

Whereupon Dr. Hellewell called on Dr. Gitlitz for another resolution, which was read by Dr. Gitlitz as follows:

WHEREAS, The Wyoming State Medical Society in the 54th Annual Meeting in association with the Rocky Mountain Medical Conference at Moran, Wyoming, June 15, 16, 17, 18 and 19, is looking forward to a most successful convention;

WHEREAS, The personnel of Jackson Lake Lodge has been shown in many ways, adding to the comfort and enjoyment of all members and guests in putting on the Rocky Mountain Medical Conference and Wyoming State Medical Society meeting;

WHEREAS, Special recognition is due President Hellewell for the many ways his leadership and efforts insured the success of the meeting;

WHEREAS, The Wyoming State Medical Society is expecting an excellent meeting in association with the Rocky Mountain Medical Conference;

WHEREAS, The exhibitors have been very cooperative in their participation in the Rocky Mountain Medical Conference and the Wyoming State Medical Society meeting;

WHEREAS, We have an excellent group of speakers who have graciously agreed to take part in our scientific program;

WHEREAS, Earl and Bessie Whedon have sponsored a lecture on Cancer Research by Dr. George C. Hall of U.C.L.A.;

WHEREAS, We are expecting a record attendance at this meeting; therefore be it

RESOLVED, That the members of the House of Delegates of the Wyoming State Medical Society in Congress assembled do take this opportunity to unanimously express their appreciation of all the matters heretofore contained in this resolution of the 54th annual meeting.

After having been moved and seconded that the resolution be adopted, the motion was carried unanimously.

Dr. Hellewell then called on Dr. Barrett for his report of the Blue Shield Trustees.

Dr. Hellewell called on Mr. Harvey Sethman for his report on the Rocky Mountain Medical Journal.

Dr. Hellewell then called on Dr. Franklin Yoder, Editor, Wyoming Section, Rocky Mountain Medical Journal, who stated he had nothing further to add in connection with the report of Mr. Harvey Sethman.

Dr. Hellewell announced that Natrona County

had a proposal in connection with uniform forms to be used in all insurance cases, including Blue Shield. Dr. Lowe spoke on this subject. Dr. Lowe stated that the Natrona County Medical Society petitions the House of Delegates of the Wyoming State Medical Society, the Blue Shield insurance form and the Wyoming State Medical Society insurance forms be revised so that one insurance form can be used for all insurance companies, including Blue Shield. After considerable discussion, Dr. Hellewell stated that in the Council meeting that a motion was made and unanimously passed that the Blue Shield form be continued as it is and that the State Society insurance form as amended, with assignment, be continued, that the two forms be used inasmuch as both of these have been adopted by the House of Delegates and they both serve a very useful purpose.

Dr. Hellewell then introduced Dr. George Lull, Secretary-Manager of the American Medical Association, who discussed insurance forms and stated that the AMA had been working on a form for about six years, that would be used by insurance companies, but expressed some doubt as to its acceptance by all companies.

Dr. Lowe then moved that a committee be appointed to study the problem and to report back at the next meeting of the House of Delegates. Seconded by Dr. Froyd. Motion carried.

Dr. Hellewell then made his presidential address to the House of Delegates.

Secretary, Dr. Benjamin Gitlitz, read the report of the Nominating Committee: For President-Elect, Dr. Wilmoth; for Vice President, Dr. Gitlitz; for Secretary, Dr. Frank Barrett; for Treasurer, Dr. Anton; selective service, for three years, Dr. Sampson; and the two Blue Shield, Dr. Guilfoyle, Dr. Tebbet, Dr. Gautsch and Dr. Halsey; The Blue Shield picks two out of four; councilors as designated by each County are: Albany, Dr. Sullivan; Carbon, Dr. Halsey; Converse, Dr. Zwalsh; Fremont, Dr. Stack; Goshen, Dr. Volk; Laramie, Dr. Giovale; Natrona, Dr. Haigler; Sheridan, (no name had been submitted); Sweetwater, Dr. Wanner; Teton, Dr. Knapp; Uinta, Dr. Whalen; Northeast, Dr. Thorpe; Northwest, Dr. Froyd.

Dr. Hellewell announced the election of officers and stated that the President-Elect, Dr. H. B. Anderson, would assume the presidency upon the conclusion of this session of the House of Delegates. Dr. Hellewell called for election of President-Elect and stated that the Nominating Committee had submitted the name of Dr. Wilmoth. Dr. Whedon moved the nominations be closed and the Secretary cast a unanimous ballot for Dr. Wilmoth. Seconded by Dr. Holtz. Motion carried.

Dr. Hellewell then called for the election of Vice President, the Nominating Committee having recommended Dr. Gitlitz. Dr. Giovale moved the nominations be closed and the Secretary cast

a unanimous ballot for Dr. Gitlitz. Seconded by Dr. Sullivan. Motion carried.

The next was the election of Secretary. Dr. Hellewell stated that the Nominating Committee had submitted the name of Dr. Francis Barrett. It was moved by Dr. Black that nominations be closed and a unanimous ballot be cast for Dr. Barrett. Seconded by Dr. Sullivan. Motion carried.

After calling for the election of a Treasurer, Dr. Hellewell stated that the Nominating Committee had again seen fit to submit the name of Dr. Anton. It was moved by Dr. Bowden and seconded by Dr. Jeffrey that the nominations be closed and the Secretary cast a unanimous ballot for Dr. Anton. Motion carried.

Dr. Hellewell called for nominations from the floor for additional names to submit to the Blue Shield Trustees. It was moved by Dr. Sudman and seconded by Dr. Bunten that nominations be closed and the four names submitted by the Nominating Committee, Dr. Guilfoyle, Dr. Tebbet, Dr. Gautsch and Dr. Halsey, be given to the Blue Shield Trustees. Motion carried.

Dr. Hellewell stated that there was one committee member to be elected to the Committee on Advisory to Selective Service. Dr. Sampson's name was recommended by the Nominating Committee for another three-year term. Dr. Blumenstock moved and Dr. Sullivan seconded that nominations be closed and the Secretary instructed to cast a unanimous ballot for Dr. Sampson. Motion carried.

Dr. Whedon expressed his appreciation for the 50-year plaque.

Dr. Hellewell then conducted Dr. H. B. Anderson to the platform, and Dr. Anderson was installed as the new President of the Wyoming State Medical Society.

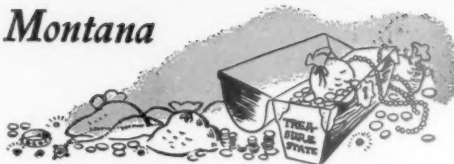
It was then moved and seconded that the House of Delegates adjourn. Motion carried.

## Obituary

### J. P. MARKLEY

Josiah Preston Markley, M.D., of Laramie, Wyoming, passed away at the Veterans Administration Hospital in Cheyenne, Wyoming, May 20, 1957. Dr. Markley received his Wyoming license in March, 1913. He was a graduate of the University of Pennsylvania School of Medicine in 1908. He practiced in Laramie and retired prior to World War II. During World War II he came out of retirement to serve the public during a temporary physician shortage. He was a World War I veteran. He is survived by his son and two grandchildren.

## Montana



### 79th ANNUAL SESSION

The 79th Annual Meeting of the Montana Medical Association, under the presidency of Edward S. Murphy, M.D., will be held at the Lodge on the campus of Montana State University, September 19-21.

Scientific sessions of the 79th Annual Meeting will convene at 11:00 a.m., Thursday, September 19, and continue until 5:00 p.m. On Friday, September 20, scientific sessions will convene at 9:00 a.m. and continue until 3:30 p.m. On Saturday, the sessions will convene at 9:00 a.m. and will adjourn at 12:30 p.m. The House of Delegates of the Montana Medical Association will meet for its first session from 8:30 a.m. until 10:30 a.m. on Thursday, September 19. The second session of the House of Delegates will convene at 3:30 p.m. on Friday, September 20, and the final session at 1:30 p.m. on Saturday, September 21.

The guest clinicians at this meeting will include John A. Anderson, M.D., Professor of Pediatrics, University of Minnesota Medical School, Minneapolis; C. Donald Creevy, M.D., Professor of Surgery (Urology), University of Minnesota Medical School; Dwight C. Ensign, M.D., Detroit, Michigan; Lyle A. French, M.D., Associate Professor of Surgery (Neurosurgery), University of Minnesota Medical School; Lester T. Jones, M.D., Clinical Professor of Otolaryngology and Rhinology, University of Oregon Medical School, Portland; Charles W. Mayo, M.D., Professor of Surgery, University of Minnesota Graduate School, Rochester; Ralph A. Reis, M.D., Professor of Obstetrics and Gynecology, Northwestern University Medical School, Chicago; Albert D. Reudemann, Sr., M.D., Professor of Ophthalmology, Wayne University College of Medicine, Detroit, Michigan, and Grier F. Starr, M.D., Consultant in Surgical Pathology, Mayo Foundation, Rochester, Minnesota.

On Thursday evening, September 19, the Association will hold its annual reception and banquet at the Florence Hotel. Robert Sullivan, Dean of the Law School of Montana State University, will be the principal speaker at the

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banquet. Certificates of distinction will be awarded to C. R. Thornton, M. D., Ronan, R. H. Dyer, M.D., Sheridan, and Sadie B. Lindeberg, M.D., Miles City, all of whom have completed fifty years in the active practice of medicine.

The Woman's Auxiliary to the Montana Medical Association will hold its 16th Annual Meeting in Missoula, September 19-21, under the presidency of Mrs. C. H. Nelson of Billings. Mrs. Paul C. Craig, President of the Woman's Auxiliary to the American Medical Association, will be honored at a luncheon of the Auxiliary on Friday, September 20, at the Elks Club.

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## Colorado



### COMPENSATION REGULATIONS REVISED

On April 24, 1957, that section of the Workmen's Compensation Laws numbered 81-12-12 was changed by the Legislature and signed by Governor McNichols. This revision requires:

... "The employee shall be entitled to have a physician provided and paid for by himself present at any such examination, and shall be entitled to receive from the examining physician a copy of any report which said physician makes to the employer, insurer, or Industrial Commission upon said examination, said copy to be furnished to the employee at the same time it is furnished to the employer, insurer, or Industrial Commission. The employee shall also be entitled to receive reports from any physician selected by the employer to treat him upon the same terms and conditions and at the same time reports are furnished by the physician to the employer . . ."

The above excerpt is called to your attention in order that you will be aware of the change and will take the necessary steps to comply with this revision.

### CORRECTION

Two errors appear in the Abstract of Minutes, House of Delegates of the Colorado State Medical Society, as published on Pages 368 et seq, in the April, 1957, issue of this Journal.

The name of Dr. Thomas J. Kennedy, Denver, is used on Pages 389 and 396 as one of the discussants of the reports of the Reference Committee on Board of Trustees and Executive Office and the Reference Committee on Professional Relations, respectively. This was in error and the correct name in both instances is Dr. James M. Kennedy of Aurora, representing the Arapahoe County Medical Society.

H. T. SETHMAN, Secretary, House of Delegates.

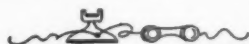


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### AUTOMOBILE CRASH INJURY STUDY

On July 1, a unique study of automobile accidents was initiated in Colorado. The study is unusual in the sense that it is primarily concerned with determining the nature and specific causes of injury to occupants of passenger cars involved in accidents. Prior to its inception, only the causes of accidents were investigated and reported; causes of injury were ignored.

This program, known as Automotive Crash Injury Research, has been endorsed by the House of Delegates of the Colorado State Medical Society on February 20, 1957, and will constitute a coordinated effort on the part of the Society and the Colorado State Patrol. The Colorado study will function for a year as part of a fifteen-state program coordinated by the Automotive Crash Injury Research project of the Department of Public Health and Preventive Medicine, Cornell University Medical College, New York.

While the Automotive Crash Injury Research program favors every realistic measure towards the prevention of accidents, which last year killed over 40,000 persons and injured 1,350,000, it recognizes that as long as human nature remains a factor in the accident equation, the occurrence of accidents can be controlled but not eliminated. Education of the driving public, improved engineering of highways, and added enforcement by police and traffic units, have done much to reduce the chances of many types of accidents; but in the final analysis, it is carelessness, inexperience, emotional instability, drunkenness and fatigue which lead to imprudent judgment on the part of the individual and result in a serious accident, often exposing other more prudent drivers and innocent passengers to injury and death.

Automotive Crash Injury Research, however, has demonstrated that the inevitable accidents can be productive of fewer crippling and fatal injuries. To this end, highway accidents are analyzed with a view to learning how to build more safety factors into automobiles.

The study of injury causes in automobile accidents, from its inception, confirms suspicion

that many persons are being killed and injured unnecessarily. As might be expected, the body area most frequently injured is the head—71 per cent of injured persons sustain an injury in this area. In the study of human tolerance to force, it was observed that common structures, such as certain aircraft instrument panels constructed of light gauge metal which would deform under impact, absorbing much of the energy, could be struck by the head at impact velocities of 40-50 miles per hour without causing skull fracture, loss of consciousness or subsequent evidences of concussion. The distribution of force in time and area and the physical principles of pressure compensation provided these astonishing examples of protection.

Participation by medical and police groups of fourteen states has made available data which has formed the basis for the development of engineering improvements which are specifically designed to reduce or moderate injury if an accident occurs. In addition, data produced by the Interstate program promises to implement medical treatment of auto crash victims through more definitive knowledge of the nature and scope of the problem. The Trauma Committee of the American College of Surgeons has expressed great enthusiasm in this project.

The Colorado study will help to evaluate the effectiveness of specific design changes in 1956, 1957 and 1958 model automobiles, such as improved door-holding mechanisms, energy-absorbing steering wheels, seat belts and interior padding. Studies of post-1955 automobiles involved in accidents already indicate, for example, that occupants of these cars are experiencing a 29 per cent reduction in the risk of dangerous through fatal grade injury. A preliminary evaluation of improved door locks, designed to decrease the incidence of ejection (commonest cause of injury in accidents), shows that, in the injury-producing accidents studied, post-1955 models experienced approximately 27 per cent less incidence of front doors opening during accidents than did pre-1956 models. A direct result was an approximate 50 per cent cut in the frequency of occupant ejection.

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Occupants of these newer model automobiles have been found to sustain nearly 30 per cent less dangerous through fatal grades of injury. Such decrease is attributable, in large measure, to the fact that doors remained closed, but also, in part, to design improvements in the interior of many new cars.

It has, also, been demonstrated that properly engineered and installed seat belts can provide a remarkable degree of protection. The most marked improvement was seen in the prevention of ejection and its associated injury risks. Although continuing studies are expected to increase the knowledge of the precise degree of added protection a seat belt may be expected to afford, present findings show that their use can reduce injury rates somewhere within a range between 30 and 60 per cent (depending on the type of accident and other factors).

Medical and accident data-collecting methods operate in the following way: All 1956, 1957 and 1958 passenger cars involved in injury-producing accidents outside the limits of municipalities come within the scope of the study. Immediately following the accident, the Colorado State Patrol officer in charge submits to the physician or emergency room chief or coroner a special medical report form furnished by Cornell. These brief forms are designed to include a description of the extent and nature of all injuries. Completed forms are mailed to the Colorado State Medical Society. Here, medical reports are matched with information supplied by the investigating highway patrolman concerning specific causes of the injury, as well as accident and car damage details and special photographs thereof. Completed cases are then forwarded to Cornell University Medical College for analysis and statistical use.

These studies are sponsored by the Armed Forces Epidemiological Board through its Commission on Accidental Trauma, with funds supplied by the Surgeon-General of the Army, by the Division of Research Grants of the United States Public Health Service and by grants to Cornell University Medical College of unrestricted

ed funds by the Ford Motor Company and the Chrysler Corporation.

#### **AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY**

Applications for certification (American Board of Obstetrics and Gynecology), new and reopened, Part I, and requests for re-examination, Part II, are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline date for receipt of applications is September 1, 1957. No applications can be accepted after that date.

Candidates for admission to the examinations are required to submit with their application, an unbound 8½x11-inch typewritten list of all patients admitted to the hospitals where they practice, for the year preceding their application, or the year prior to their request for reopening of their application. This information is to be attested to by the Record Librarian, Superintendent, or Director of the hospitals where the patients are admitted.

Current bulletins outlining present requirements may be obtained by writing to the Secretary's office, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

#### **DOCTORS AS DIPLOMATS**

American doctors around the world will be the theme of a full-hour color "March of Medicine" television film to be presented this fall by Smith, Kline & French Laboratories with the cooperation of the American Medical Association. The program will be built around the activities of American doctors throughout the world who, in their devotion to their profession, are good-will ambassadors for the United States. Private, missionary, military, foundation and government doctors will be featured. The production crew will journey to a number of far-flung locations, including Japan, Korea, Hong-Kong, Nepal, India, Sarawak, Indonesia, Iran, Turkey, Ethiopia, France and Guatemala. This

(Continued on page 850)

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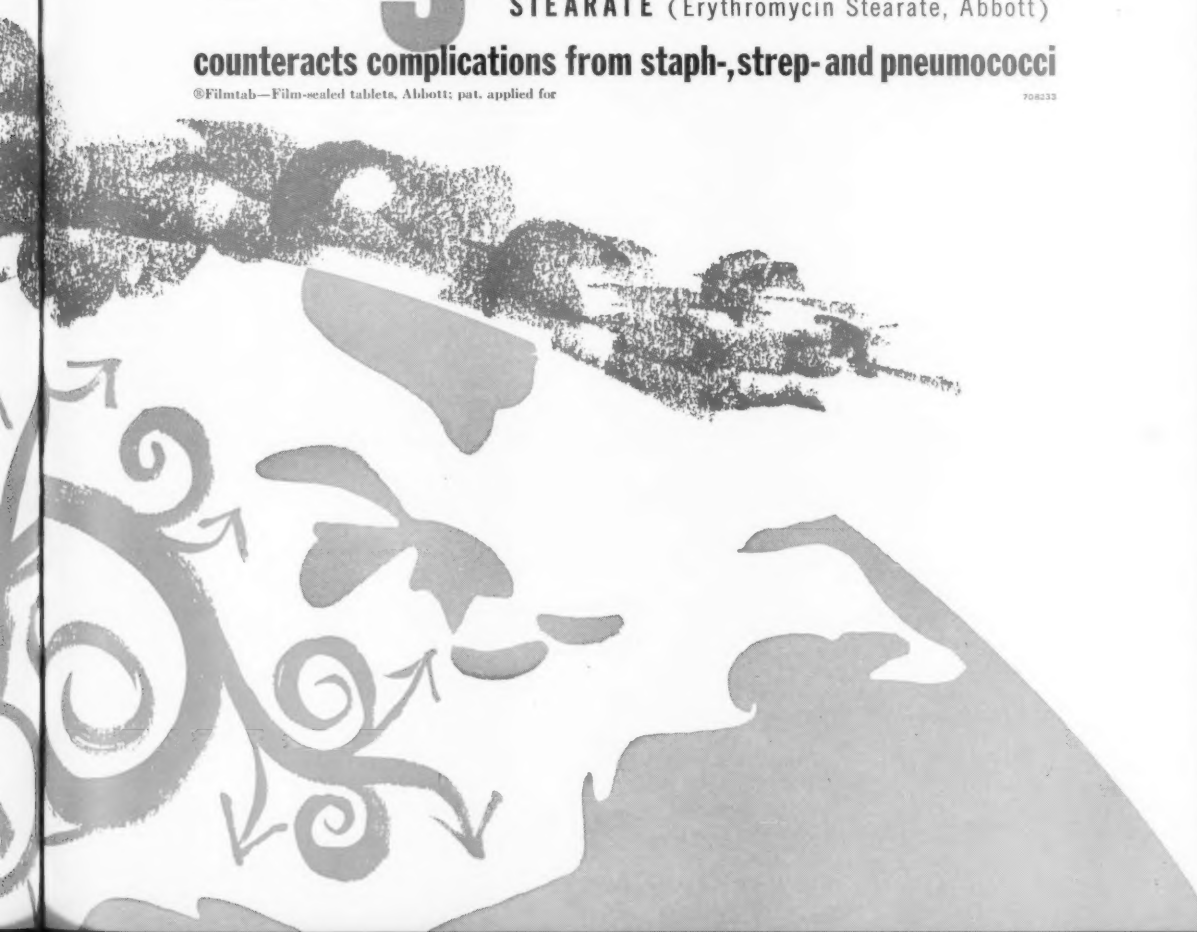
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(Continued from page 847)

"March of Medicine" program will be beamed over the NBC television network Tuesday, December 3, from 9:30 to 10:30 p.m., EST, during AMA's Clinical Session in Philadelphia.

#### AMA PUBLISHES CURRENT HEALTH INSURANCE DATA

Latest information on voluntary prepayment medical benefit plans is being compiled by the AMA Council on Medical Service. Both the 10th revision of "Voluntary Prepayment Medical Benefit Plans" and the supplementary "Charts and Graphs" will be available about July 1. The former summarizes information on the benefits, organizational structure, premiums, enrollment, etc., of more than 100 plans designed to provide assistance in financing health care. The latter pamphlet contains composite statistical data showing aggregate claims experiences, administrative costs and enrollment figures as well as comparisons with similar figures published by other sources. For the most part, enrollment figures are as of December 31, 1956, while the statistical data pertain to operations and experience for the 1956 calendar year.

Single copies will be available to physicians and medical societies, without charge, from the Council.

#### DRUGS ARE NOT ENOUGH

During the past two years an important scientific achievement has been made in the fight against mental illness—the successful use of drugs in the treatment of the mentally ill. These drugs have been hailed as a valuable adjunct in the treatment of mental disorders. For instance, with them patients who were not amenable to psychotherapy because they were "out of touch with reality" can now be reached by psychiatrists. Once disturbed wards are now quiet. Little restraint is now needed. Reports have come in which tell of the recovery of patients with whom all other treatment methods had failed.

But a note of caution is issued with these reports. They point out that these drugs are not effective with all mental illnesses, that they don't work on all patients, and that they do only part of the job. To be effective, they must be accompanied by psychotherapy.

So these drugs are not a "cure-all" or an "end-all" to mental illness, even though they do present a hopeful picture for the treatment of the mentally ill.

More research is needed to fully explore the use and limitations of these drugs—because some side effects have been reported in their use. More research is needed to develop new treatment methods. More personnel is needed (in the

thousands) to administer technics we already know. But more than that, thousands of additional psychiatrists are needed to treat patients and to carry on research.

The need for these measures is urgent and it can only be met through public interest and action.

The mentally ill can come back. But to do so they need our help—desperately.

### The Book Corner



#### New Books Received

*New books received are acknowledged in this section. From these, selections will be made for reviews in the interests of the readers. Books here listed will be available for lending from the Denver Medical Library soon after publication.*

**Health Yearbook, 1956:** Edited by Oliver E. Boyd, Ed.D., M.D. Stanford, Calif., Stanford University Press, 1957. Price: \$5.00.

**A Visit to the Hospital:** By Francine Chase, with pictures by James Bama, and prepared under the supervision of Lester L. Coleman, M.D. N. Y., Grosset & Dunlap, 1957. Price: \$1.50.

**Alcoholism: a Treatment Guide for Practitioners:** By Donald W. Hewitt, M.D. Philadelphia, Lea & Febiger, 1957. Price: \$3.00.

**Vegetable Oils in Nutrition, With Special Reference to Unsaturated Fatty Acids.** N. Y., Corn Products Refining Co., 1957. Gift.

**Practical Gynecology:** By Walter J. Reich, M.D., and Mitchell J. Nechtow, M.D. 2nd edition. Phila., Lip-pincott Co., 1957. Price: \$12.50.

**The Changing Patient-Doctor Relationship:** By Martin G. Vorhaus, M.D. N. Y., Horizon Press, 1957. Price: \$3.95.

**The Treatment of Burns:** By Curtis P. Artz, M.D., and Eric Reiss, M.D. Phila., W. B. Saunders Co., 1957. Price: \$7.50.

**A Textbook of Histology:** By Alexander A. Maximow and William Bloom. 7th edition. Phila., W. B. Saunders, 1957. Price: \$11.00.

**Textbook of Pathology, With Clinical Applications:** By Stanley L. Robbins, M.D. Phila., W. B. Saunders, 1957. Price: \$18.00.

**Ciba Foundation Symposium on the Chemistry and Biology of the Purines.** Boston, Little, Brown & Co., 1957. Price: \$9.00.

**Ciba Foundation Colloquia on Endocrinology, Vol. 10: Regulation and Mode of Action of Thyroid Hormones.** Boston, Little, Brown & Co., 1957. Price: \$8.50.

**Obesity, Its Cause, Classification and Care:** By E. Philip Gelvin, M.D., and Thomas H. McGavack, M.D. N. Y., Hoeber-Harper, 1957. Price: \$3.50.

**Bronchopulmonary Diseases: Basic Aspects, Diagnosis and Treatment:** Edited by Emil A. Naefer, M.D. 142 authors. N. Y., Hoeber-Harper, 1957. Price: \$24.00.

**The Specialities in General Practice:** Edited by Russell L. Cecil, M.D., and Howard F. Conn, M.D. 2nd



edition. Phila., W. B. Saunders Company, 1957. Price: \$16.00.

**Geopp's Medical State Board Questions and Answers:** By Harrison F. Flippin, M.D. 9th edition. Phila., W. B. Saunders Company, 1957. Price: \$8.00.

**Clinical Proctology:** By J. Peerman Nesselrod, B.S., M.S., M.Sc. (Med.), M.D. 2nd edition. Phila., W. B. Saunders Company, 1957. Price: \$7.00.

**A Manual of Pharmacology, and Its Application to Therapeutics and Toxicology:** By Torald Sollman, M.D. 8th edition. Phila., W. B. Saunders Company, 1957. Price: \$20.00.

## Book Reviews

**The Physician-Writer's Book: Tricks of the Trade of Medical Writing:** By Richard M. Hewitt, A.M., M.D., Senior Consultant in the Section of Publications of the Mayo Clinic, Philadelphia, W. B. Saunders Co., 1957, 415 p. Price: \$9.00.

The author's aim, in presenting this manual to the medical profession, is "to aid the inexperienced, inept, occasional physician-author, whose material is written for other physicians." As the detailed thirteen-page table of contents would indicate, this book is intended to be a reference guide and not a text to be read through from beginning to end. The author's secondary aim is to protect the readers of medical literature from sloppy, poorly organized, verbose and non-grammatical writing. This is aptly stated in the book's motto, a quote from Alan Gregg: "The common level of medical and scientific writing in our professional books and journals already constitutes the most serious internal limitation to medical education and research."

The first 111 pages in fifteen chapters are devoted to "The Whole Article or Book," the next 10-page chapter to "The Paragraph," and the following 67 pages in seventeen chapters to "The Sentence." A 32-page chapter on "Words and Phrases" completes the orderly dissection of the medical article. This chapter is a dictionary of misused words and phrases with explanations as to why the usages are incorrect. On spelling itself, the author advises:

1. Buy an unabridged English dictionary in one volume and put it on casters.
2. Buy the fullest, latest medical dictionary in English.
3. Become pitifully dependent on what you have bought.

Chapters on the use of tables and illustrations, on preparation of the paper for release, on procedure for obtaining a copyright, and on ethics, complete the body of the book. Seventy-five pages devoted to appendixes—actually miscel-

laneous collections of pearls—bring the reader to a 20-page detailed index.

Hewitt has drawn freely from the experiences of others, and he has included hundreds of examples to illustrate his points. His work is highly recommended, not only to prospective authors, but to those who must review and edit articles submitted for publication. "The Editor's Song" is reprinted in this book, taken in turn from a 1931 issue of *Minnesota Medicine*. One verse of this reads:

If you have a tale to tell,  
Boil it down!  
Write it out and write it well,  
Being careful how you spell;  
Send the kernel, keep the shell;  
Boil it down! Boil it down!

JAMES R. LEAKE, M.D.

**Campbell's Operative Orthopaedics:** Edited by J. S. Speed, M.D., and Robert A. Knight, M.D. 3rd ed. St. Louis, C. V. Mosby Co., 1956. 2 vols. Price: \$40.00.

The third edition of Campbell's Operative Orthopaedics, edited by Drs. Speed and Knight and abetted by the staff of the Campbell Clinic, again reconfirms the unique position which this work occupies as the outstanding authority in its field. This reference treatise is so well known that it should suffice to say the third edition has been thoroughly revised. It is a "sine qua non" to all those interested in the field of fractures and orthopaedic surgery.

BERNARD C. SHERBOK, M.D.

**The Riddle of Stuttering:** By C. S. Bluemel, M.D. The Interstate Publishing Company, pp. 142. Price: \$3.50.

Dr. Bluemel has added significantly to the literature on stuttering by his latest book, "The Riddle of Stuttering." After many years of thinking and writing on the subject (Dr. Bluemel's first book, "Stammering and Cognate Defects of Speech," was published in 1913), he approaches the subject in a mature, yet new and stimulating manner. He seeks the answer to the riddle in the field of psychiatry. Unlike many of the writers in the field, he says that stuttering results from a combination of many, at least three, different causes. This means that the riddle is not a simple speech disorder, but a complex disturbance which must be studied in its many aspects of both speech and personality.

The three factors or causes which, according to the author, produce stammering are: the per-

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sonality of the stammerer, the non-organization of the original speech, and dis-organization of the speech by stress before it becomes securely established. He says stammerers have a predisposition to their speech difficulty, as they are poorly organized in their neuro-muscular reactions, and their incoordinations include the function of speech. Under stress the poorly organized speech readily becomes disorganized. This latter is non-organized speech, or speech in the un-making, and occurs when the psychophysiological pattern has not been safely and securely organized.

The chapter on "The Organization of Speech" is excellent and is particularly good for the non-medical person. The chapter on the "Dis-organization of Speech" is equally good, and as far as this reviewer knows, is an entirely new approach in the speech pathology literature.

Dr. Bluemel's therapy is directed toward re-organizing the basic speech of the stammerer. While ear training is one of the most popular and valuable technics in working with an articulation speech problem, his concept of sensory stimulation, i.e. ear training as a therapeutic device to use with stammerers is new and thought provoking. He says:

"Ear training is employed to establish a good mental pattern of speech. Attention is then directed to the thinking process in speech, which is more important in the therapy than the talking process. In this concept of therapy, talking is thinking out loud. The mind broadcasts to the mouth; the words say themselves."

The importance of mental hygiene in the program of stammerers is not overlooked. For the personality re-education it is suggested that psychotherapy be used.

The book ends on an optimistic note with the feeling that the riddle will soon be solved. There are many new and scientific ideas in the book, and it should be read and absorbed by everyone interested in speech problems.

RUTH M. CLARK, Ph.D.,  
Director, Speech Clinic,  
2045 So. York.

**The Management of Fractures, Dislocations and Sprains:** By John Albert Key, B.S., M.D., F.A.C.S., and H. Earle Conwell, M.D., F.A.C.S. 6th edition. St. Louis, C. V. Mosby Company, 1956. Price: \$20.00.

This volume is the 6th Edition of a leading American textbook on the care of fractures and related injuries. In size and subject matter there is little change from the preceding edition. In value it is difficult to find a better textbook.

It is noted that the separate chapters on "Fractures of the Skull and Brain Trauma" and "Fractures of the Jaws and Related Bones of the Face" have been deleted from this new edition. However, in Chapter 5, "Complications of Fractures," brief discussions of brain and visceral injuries are included. Whiplash injuries, so common in this automotive era, have been honored with a separate sub-section. The matter is treated briefly—perhaps too briefly. The remaining chapters preserve the general outline of the 5th edition.

The organization of the subject matter is excellent and any given injury is easily located by the table of contents or the index. The brief section on anatomy at the beginning of each section dealing with specific injuries will be welcomed by the student, and is refreshing for the experienced surgeon. The illustrations are adequate in number, of good quality, and add to the clarity of visualization.

Its stated purpose of being a book for the student, the general practitioner and the surgeon is accomplished admirably. It should certainly be readily available to anyone dealing with fractures and related injuries.

KASIEL STEINHARDT, M.D.

**Clinical Use of Radioisotopes:** By William H. Beierwaltes, M.D., Philip C. Johnson, M.D., and Arthur J. Solari, B.S., M.S. Phila., W. B. Saunders Company, 1957. Price: \$11.50.

This textbook, written for the clinician, is the outgrowth of ten years' experience in teaching radioisotope procedures in the University Hospital at Ann Arbor, Michigan. It was written primarily to help in the instruction of this program. This certainly is the most practical and up-to-date text for the clinician covering the field of radioisotopes that is available today.

The material is arranged in an orderly manner covering first the field of basic physics necessary to the understanding of the use of radioisotopes. The main body of the text is weighted heavily in favor of radioiodine especially in the diagnosis and treatment of thyroid conditions. This is as it should be since this is by far the widest use of isotopes today. Other chapters include the use of radioactive phosphorus and gold. The other less commonly used radioisotopes are also discussed. The space allocated to them is in direct relationship to their importance. An excellent chapter is included on the biological effects of radiation and another on health physics. Also discussed is the starting and managing of a clinical radioisotope unit. Appendices are included, furnishing information on counting, decay tables and other pertinent information. Clinical training courses for the use of radioisotopes are listed.

All in all, we feel this is one of the best books available today in a field which is very rapidly expanding and rising to a prominent position in the practice of medicine. The bibliographies at the end of each chapter are very much up to date and thus quite valuable for the individual who wishes to delve deeper into the subject matter.

ROBERT W. LACKEY, M.D.

**Cardiac Diagnosis: a Physiologic Approach:** By Robert F. Rushmer, M.D. Phila., W. B. Saunders Co., 1955. 447 pp. Price: \$11.50.

The purpose of this book is to present an approach to cardiac diagnosis based on function and control of the heart under normal and abnormal conditions. Mechanisms of production of signs and symptoms are particularly emphasized. Subject matter consists of a selective, but complete, review of current concepts regarding function of, and regulation of, the normal cardiovascular system, as well as a complete discussion of dynamics of the abnormal cardiovascular system. Also methods of cardiovascular diagnosis including acquired and congenital heart disease are covered. Presentation is to the point and without superfluous wording. Much of the material is based upon a series of research projects accomplished in association with a team representing several fields of interest that would necessarily enhance the reliability of the subject matter. This is not intended as a complete text and does not include methods of therapy or complete coverage of all forms of heart disease. The sections on valvular and congenital heart disease are particularly noteworthy for the clear presentation of dynamics and for the excellent illustrations. Much

information is compressed into this book, and it is recommended reading for those desiring a clinical and physiologic correlation in cardiac diagnosis.

H. B. KENNISON, JR., M.D.

**Diagnosis and Treatment of Peripheral Vascular Disorders:** By David I. Abramson, M.D., Professor and Head of Department of Physical Medicine and Rehabilitation, University of Illinois, Chicago. Paul B. Hoeber, Inc., New York, 1956. 537 pp., 82 ill. Price: \$13.50.

The author states in his preface that this volume is intended for the family physician, by dealing with the various circulatory disorders in such a manner that pertinent information is readily available to him for clinical application. Although some details are omitted, the author does cover comprehensively and thoroughly the practical, clinical aspects of the subject. The text is simply written and is quite readable for any practitioner.

The contents have been divided into three sections. The first part is devoted to symptoms and signs in the differential diagnosis of peripheral vascular disorders. The second section covers the various disease entities of the arterial, venous, and lymphatic systems. This section includes therapeutic procedures of proven value as well as additional differential diagnosis. In the third and last section of the volume are presented those anatomic, physiologic, and pharmacologic facts pertaining to the pathologic alterations underlying peripheral vascular disorders.

The portion of the text dealing with symptoms and signs in differential diagnosis is especially to be commended. The dissertations on various aspects of the diseases of the venous system are also outstanding. The illustrations are numerous and well chosen. Discussions on differential diagnosis are aided by charts. Where details are omitted, there is an adequate bibliography.

Like many other current medical publications, there are small portions of the text which became obsolete before the printed pages could reach the reader. In the chapter covering the use of anticoagulants to combat intravascular thrombosis, no mention is made of sodium warfarin or some of the other newer anticoagulants. The discussion on anticoagulants would appear to be already out-of-date.

In its entirety this book is an excellent one and is recommended to any practicing physician who does not want the most detailed text on peripheral vascular diseases, but wants a practical readable text on the subject.

PAUL F. MINER, M.D.

**The Compleat Pediatrician:** By W. C. Davison, M.D., and Jeana Davison Levinthal, M.D. 7th ed. Durham, N. C., Duke University Press, 1957. Price: \$4.25.

The frontispiece of Dr. Davison's familiar book states that the present edition (which is the seventh) has been "completely rewritten." Certainly, the text has been considerably altered to include mention of most of the established new ideas of diagnosis and treatment and other features which bear upon the welfare of children.

A review of such a vast storehouse of facts and figures, all relating to a single subject, is similar to a criticism of the current U. S. census. There is no way to fully evaluate the thoroughness with which this book has been written because to do so would mean that one would have to read it through from cover to cover. As Dr. Davison states in his humorous preface, "this book was not intended to be read consecutively or for pleasure but only when in need of information." However, past experience with the previous editions strongly indicates that the present volume is complete enough for most purposes.

The general form of the book which is familiar to all pediatricians, has been retained. Symptoms and diseases have been divided into seven chapters on the basis of the anatomical systems chiefly involved. These chapters have been arranged in the order of the frequency that the diseases have been seen, although there are undoubtedly statistical differences between the present incidence and the figures used by Dr. Davison some years ago.

This book has always been somewhat difficult for the present reviewer to use. It requires quite a bit of page turning, and the authors' unique numbering system which involves giving many pages on the same subject the same number, still causes some consternation.

The Compleat Pediatrician is designed to serve as a portable memory and as such it functions in exactly the fashion indicated by the author in his preface. Nearly 20,000 references have been referred to in order to compile the facts which are presented. No one can argue that the new Compleat Pediatrician will not still remain a solid friend to anyone who deals with children and will provide continuing means for the author, his wife, and his daughter "to do more travel."

Anyone who buys the book and who meets it for the first time should by all means carefully read the highly personalized preface and the instructions for using the book. Certainly the preface is by far the most readable part of this one pound volume of highly concentrated information.

S. E. WHELOCK, M.D.

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**Atlas of Clinical Endocrinology:** By H. Lissner, A.B., M.D., and Roberto F. Escamilla, A.B., M.D. 476 pages. C. V. Mosby Company, St. Louis, 1957. Price: \$18.75.

This outstanding book offers a concise and largely visual presentation of endocrine disorders in atlas format with an abbreviated text which contains all essentials for adequate diagnosis and therapy, even to details of dosage. Only a few selected references, both recent and historical, are appended to each chapter. Diabetes mellitus was deliberately omitted as it does not lend itself to graphic presentation. Photographs of the patients before the onset of the various endocrine disorders are liberally used by the authors, and afford interesting comparisons with the visual records of subsequent stages of the endocrinopathies. The section on the pituitary gland includes gigantism, acromegaly, Cushing's disease, hypophyseal infantilism, Simmonds' Disease, pituitary myxedema, adrenal cortical insufficiency secondary to hypopituitarism, eunuchoidism secondary to hypopituitarism, diabetes insipidus, Hand-Schiller-Christian syndrome, non-functioning pituitary tremors, adult aneoplastic hypopituitarism, and Frohlich's syndrome. The section on the hypothalamus includes hypothalamic obesity and other fat dystrophies, and cerebral neurogenic sexual precocity. The section on the thyroid gland includes hyperthyroidism, progressive exophthalmos, non-toxic goiters, thyroiditis, cancer of the thyroid, childhood and adult hypothyroidism and cretinic degeneration. Parathyroid endocrinopathy is represented by hypo and hyperparathyroidism. The section on the adrenal glands includes Cushing's disease and Cushing's syndrome, adrenogenital syndrome, gynecomastia in males, Achard-Thiers' adrenal cortical hyperplasia, primary aldosteronism, x-ray procedures for visualizing hyperplasia or tumors of the adrenals, and adrenal medullary syndrome, diabetes of bearded women, congenital tumors. The section on the pancreatic islets includes organic, relative and functional hyperinsulinism. The sections on the testes, ovotestis and the ovaries include precocious puberty, eunuchoidism, the climacteric, Klinefelter's syndrome, infertility, gonadal agenesis and tumors, cryptorchidism, pseudohermaphroditism, true hermaphroditism, polycystic ovaries, and amenorrhea. A miscellaneous section includes progeria, mongolism, Laurence-Moon-Biedl syndrome, achondroplastic dwarfism, Morquio's disease, gargoylism, disorders of the epiphyses, and metablock craniopathy. The last section or appendix includes useful charts, tables, and graphs of behavior and developmental patterns, height, weight and dental ages. Hence, it is obvious that this fine book belongs in the library of almost every physician, as the endocrinopathies have manifestations found in all the medical and surgical specialties.

FRANK R. DRAKE, M.D.

**Your Wonderful Body:** By Peter Pineo Chase, M.D. Englewood Cliffs, N. J., Prentice-Hall, Inc., 1957. 391 p. Price: \$5.95.

This is an excellent book for the layman. The style is flowing, reading like a novel. Interspersed with the factual material are many humorous quotations in prose and verse, which add to the interest of such a book. Physicians might also read this with interest, particularly those who are losing their sense of humor or becoming too impressed with themselves.

JOHN R. EVANS, M.D.

ROCKY MOUNTAIN MEDICAL JOURNAL

## The Colorado State Medical Society

### Annual Session; September 24-27, Denver

#### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** George R. Buck, Denver.  
**President-Elect:** Gatewood C. Milligan, Englewood.  
**Vice President:** C. Walter Metz, Denver.  
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**Additional Trustees** (three years): Lawrence D. Buchanan, Wray, 1957; Ray G. Witham, Craig, (to fill vacancy) 1957; Terry J. Gromer, Denver, 1958; Bernard T. Daniels, Denver, 1959.  
 (The above nine officers compose the Board of Trustees of which Dr. Buck is Chairman and Dr. Metz is Vice Chairman for the 1956-1957 year.)

**Board of Councilors** (three years): District No. 1: Osgood S. Philpott, Denver, 1957; District No. 2: Roger G. Howlett, Golden, 1959; District No. 3: Harry C. Bryan, Colorado Springs, 1958; District No. 4: John R. Hildebrand, Brush, 1957; District No. 5: John D. Gillaspie, Boulder, 1957; District No. 6: Harvey M. Tupper, Grand Junction, 1958; District No. 7: Charles L. Mason, Durango, 1958; District No. 8: Herman W. Roth, Chairman, Monte Vista, 1959; District No. 9: Scott A. Gale, Pueblo, 1959.

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**Delegates to American Medical Association** (two calendar years): E. H. Munro, Grand Junction, 1957; (Alternate, Harlan E. McClure, Lamar, 1957); Kenneth C. Sawyer, Denver, 1958; (Alternate, Irvin E. Hendryson, Denver, 1958).

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## The Wyoming State Medical Society

#### OFFICERS—1957-1958

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**Secretary:** Francis A. Barotti, Cheyenne.

**Treasurer:** C. D. Anton, Sheridan.

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**Alternate Delegate, A.M.A.:** B. J. Sullivan, Laramie.

**Executive Secretary:** Mr. Arthur R. Abbey, Cheyenne.

## Montana Medical Association

### Annual Meeting; September 19-21, Missoula

#### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated, the term is for one year only and expires at the 1957 Annual Session.

**President:** Edward S. Murphy, Missoula.

**President-Elect:** John A. Layne, Great Falls.

**Vice President:** Herbert T. Caraway, Billings.

**Secretary-Treasurer:** Theodore R. Vye, Billings.

**Assistant Secretary-Treasurer:** Park W. Willis, Jr., Hamilton.

**Executive Committee:** Edward S. Murphy, Missoula, Chairman; John A. Layne, Great Falls; Herbert T. Caraway, Billings; Theodore R. Vye, Billings; Park W. Willis, Jr., Hamilton; George W. Setzer, Malta; John J. Malce, Anaconda.

**Executive Secretary:** Mr. L. R. Hegland, P. O. Box 1692, Office Telephone 9-2585, Billings.

**Delegate to American Medical Association:** Raymond F. Peterson, Butte; alternate, Paul J. Gans, Lewiston.

## The Utah State Medical Association

### Annual Session; September 5-7; Salt Lake City

#### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** James Z. Davis, M.D., Salt Lake.

**President-Elect:** Reed W. Farnsworth, M.D., Cedar City.

**Past President:** R. O. Porter, M.D., Logan.

**Honorary President:** C. N. Ray, M.D., Salt Lake.

**Secretary:** J. Poulsen Hunter, M.D., Salt Lake.

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**Councilor, Carbon County Medical Society:** L. H. Merrill, M.D., Hialeatha.

**Councilor, Central Utah Medical Society:**

**Councilor, Salt Lake County Medical Society:** James F. Orme, M.D., Salt Lake.

**Councilor, Southern Utah Medical Society:**

**Councilor, Uintah Basin Medical Society:** T. R. Sager, M.D., Vernal.

**Councilor, Utah County Medical Society:**

**Councilor, Weber County Medical Society:** I. B. McQuarrie, Ogden.

**Delegate to the A.M.A., 1955-57:** George M. Flister, M.D., Ogden.

**Alternate:** Elliot Snow, M.D., Salt Lake City.

**Editor of the Utah Section of the Rocky Mountain Medical Journal:** R. P. Middleton, M.D., Salt Lake.

## New Mexico Medical Society

#### OFFICERS—1957-1958

Terms of Officers expire at the Annual Session in the year indicated. Where no year or term is indicated, the term is for one year only and expires at the 1958 Annual Session.

**President:** Samuel B. Ziegler, Espanola.

**President-Elect:** James C. Sedgwick, Las Cruces.

**Vice President:** Lewis M. Overton, Albuquerque.

**Secretary-Treasurer:** Omar Legant, Albuquerque.

**Executive Secretary:** Mr. Ralph R. Marshall, 302 First National Bank Building, Albuquerque; telephone 2-2102.

**Immediate Past President:** Stuart W. Adler, Albuquerque.

**Councilors** (three years): W. O. Connor, Jr., Albuquerque, 1958; L. L. Daviet, Las Cruces, 1958; Aaron Margulis, Santa Fe, 1959; John A. Evans, Las Vegas, 1959; Gerald Slusser, Artesia, 1960; George Prothro, Clovis, 1960; Wendell Pearce, Farmington, 1960.

**Delegate to American Medical Association** (two years): H. L. January, Albuquerque, 1958; alternate, Earl L. Malone, Roswell, 1958.

**Grievance Committee:** Louis Levin, Belen, Chairman, 1958; Jack Dillalant, Albuquerque, Secretary-Treasurer, 1958; A. D. Maddox, Las Cruces, 1958; G. A. Slusser, Artesia, 1958; William Hossley, Deming, 1960; Pierre Salmon, Roswell, 1960; Alfred Jensen, Hobbs, 1959; James McCrory, Santa Fe, 1959; William Natoli, Los Alamos, 1958.

**New Mexico Physicians Service:** Wendell Pearce, Farmington, President, 1958; H. M. Mortimer, Las Vegas, 1960; R. P. Beudette, Raton, 1958; R. V. Seligman, Albuquerque, 1958; Omar Legant, Albuquerque, 1958; Allen Haynes, Clovis, 1959; W. L. Minton, Lovington, 1959; J. P. Turner, Carrizozo, 1959; U. S. Marshall, Roswell, 1959; J. W. Hillsman, Carlsbad, 1959; Angus McKinnon, Albuquerque, 1960; James Wiggins, Albuquerque, 1960; Andrew Babey, Las Cruces, 1960; John Abrams, Albuquerque, 1960; Executive Director, Mr. L. J. LeGrave, 212 Insurance Building, Albuquerque, Phone 3-3188.

## Colorado Hospital Association

#### OFFICERS, 1956-1957

**President:** Robert A. Pontow, Colorado General Hospital, Denver.

**President-Elect:** Roy Prangely, St. Luke's Hospital, Denver.

**Vice President:** Msgr. John R. Mulroy, Catholic Hospitals, Denver.

**Treasurer:** Walter Dubach, Children's Hospital, Denver.

**Trustees:** Harry Clark (1957), Southwest Memorial Hospital, Cortez; Elton A. Reese (1957), Alamosa Community Hospital, Alamosa; Roy Anderson (1957), Presbyterian Hospital, Denver; C. Franklin Fielden (1958), Memorial Hospital, Colorado Springs; Lewis Linwood (1958), National Jewish Hospital, Denver; Milton Spielcher (1958), Wray Community Hospital, Wray; John Peterson (1959), Larimer County Hospital, Fort Collins; Hubert Hughes (1959), General Rose Hospital, Denver; Jacob Horowitz (1959), Denver General Hospital, Denver.

**Blue Cross Representative on Board of Trustees:** Glenn Saunders, Denver. **Delegate to the American Hospital Association:** H. E. Rice, Porter Sanitarium and Hospital, Denver; **Alternate Delegate:** H. H. Hill, Weld County Hospital, Greeley.





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# EDITORIALS

WHEN the anxious voice on the far end of your telephone connection queries "Doctor! Johnny just drank a bottle of suntan lotion! What should I do?" . . . What *should* she

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Of course, you will want to take some immediate action locally while you are getting this special information by phone. What action you take depends on the patient's age, general health, time elapsed since the poisoning and a knowledge, if available, of whether the poison was a caustic, solvent, medicinal or other substance. You can't go far wrong if you first try to produce emesis or perform a gastric lavage to remove as much of the offender as possible, thereby reducing the total dosage of the agent. Sec-

ondarily, of course, a sample of the agent is obtained for identification purposes if it is needed.

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Your own gratitude will go out to the man on the other end of the phone line and to the unit he represents. But let your gratitude go just a bit further—those of you in Alamosa, Calispell and Albuquerque—to the taxpayers of the City and County of Denver who at the moment are the sole support for this humanitarian service being offered to the entire Rockies region.

Now write down the phone number — *right now*—in your phone number directory. TA. 5-1331.

AN ALTERNATIVE title of this editorial might be Unspectacular Preventive Medicine. Everyone agrees that the practice of preventive medicine is even more important

than successful medical treatment, but it is well known that the various types of preventive medicine have different degrees of attractiveness. Today the use and benefits of the polio vaccine represent an example of "glamorous" preventive medicine. The eager participation of commercial firms in its mass-production, the strong endorsement of the medical profession, and the enthusiastic and widespread cooperation of the public have resulted in tremendous publicity for this great program in preventing disease.

The continuous daily use of drugs to guard

against further attacks of rheumatic fever, for those persons who have already had one attack, represents another type of preventive medicine. This is just as effective and important as the polio vaccine, but is unfortunately far more difficult to "sell" to the professions and the public.

The simple practice of periodic health appraisal of children, even when they seem perfectly healthy, represents an even broader application of the principles of preventive medicine. This, alas, has almost no appeal to the average professional or lay person. Parents believe that it seems like a waste of time and money to take a well child to a physician.

What is involved? The practice of taking an infant to his doctor every one to three months for the first two years of life and then at longer intervals through the preschool and school years.

What are some of the benefits? 1. Getting routine "shots" which will protect the young child against several infectious diseases (polio vaccine will soon take its place along with smallpox and whooping cough vaccine as "musts" for all children). The proper time to have this done is before the child finishes the *first year of life*—not the first grade in school. 2. Getting the child "immunized" against accidents. This may sound strange, but an alert physician and a cooperative parent can do much both to protect the child against certain common types of accidents and poisonings; and, even more important, to teach and train the older child to guard himself against accidental hazards. Perhaps the process used is not as efficient as some vaccine for an infectious disease, but studies have shown that it is remarkably successful. Since so many more children are either handicapped or killed by accidents than by all diseases in this country, this form of preventive medicine is extremely important. 3. Protection against the development of emotional or mental illness. Scientific evidence is piling up to show that the many little suggestions and bits of sound advice which the average physician can offer to parents, help to give each child the proper "spiritual nourishment." This goes a long way to keep that child emotionally balanced. 4. Finally, this program of preventive medi-

cine gives the child's physician ample opportunity to study the all important process of individual growth and development, and to detect any correctable defects *early in life*.

What is being done to place more emphasis on this form of medical care? For many years the American Academy of Pediatrics, the Children's Bureau, and the American Public Health Association have been "promoting" periodic health appraisal as an important safeguard for child health. Medical schools have incorporated this principle into their teaching and research programs. And last year the National Congress of Parents and Teachers took a strong stand endorsing this practice all through the preschool years, instead of having a "summer round-up" just before the child enters school.

Among other measures to encourage this, the Colorado State Health Department, with the help and approval of the Colorado State Medical Society, has developed an individual child health record *for the parents to fill out and keep*.

It should be emphasized that this record is not intended for replacement of any official health records of physicians, hospitals, health departments or schools, etc. It has been designed for use by lay persons; to help them keep an accurate record of health and to encourage them to develop good health habits and practices.

The plan for introducing this record is to send copies of it to all Colorado hospitals having newborn nurseries as distribution points. Physicians having maternity patients in these hospitals are requested to discuss the record with them and urge each mother to start one for her new baby before she leaves the hospital.

Because financial limitations prevent distribution of the health records to all Colorado citizens, it was decided to concentrate on their use for all newborns in the coming year. If parents desire additional copies of the record for their other children, they may obtain them without charge on request to their local public health department or to the Health Education Section of the State Health Department, 1422 Grant St., Denver 3, Colorado.

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# ARTICLES

## *Circulatory Responses During Anesthesia*

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IT IS the purpose of this paper to examine several of the important circulatory disorders which occur during anesthesia and to comment on their practical consequences. No attempt can be made to relate these directly to mortality from anesthesia since such statistical knowledge is not available. It is hoped, however, that the inferences will be clear and that there will be a relationship observed between the subtleties of derangement and the potential damages which may result in death or morbidity.

### **Problems of Ventilation**

Establishment of the anesthetized state brings about either an actual or a potential change in the pattern of total pulmonary and alveolar ventilation. Depression of ventilation occurs with many of the potent anesthetic and sedative drugs by virtue of their central depression of respiratory exchange. The commonly used narcotics are excellent examples of drugs producing this type of response. The anesthetics thiopental sodium and cyclopropane also produce actual depression of ventilation. Other anesthetic agents can cause a depression of ventilation as a consequence of developing adequate anesthetic depth for a given surgical procedure. Ether is a good example of this action. The relatively newly developed muscle relaxants which are employed

to provide a good relaxed surgical field can produce depression of breathing by causing paralysis of the muscles of respiration. Depression of ventilation can also occur as a consequence of the surgical procedure. For example, the opening of the chest or the employment of a posture not ideally suited to satisfactory respiratory exchange can also lead to hypoventilation.

### **Problems of Circulation**

Hypoventilation is associated with development of respiratory acidosis as well as anoxia. Since the circulatory effects of retention of carbon dioxide are not so well known as those of anoxia, a detailed description of these changes should be useful. Increases of carbon dioxide in the blood can produce local vasodilatation presumably by direct action upon local vessels. This is certainly true in the brain. On the other hand, carbon dioxide retention can effect a reflex peripheral vasoconstriction because of stimulation of the carotid and aortic chemoreceptors<sup>1</sup>. There are other circulatory consequences which occur during the acidotic state. A state of acidosis can produce electrocardiographic changes particularly in the T wave and S-T segments<sup>2</sup>. Hypercapnea also appears to potentiate certain vagal reflexes which may actually result in cessation of heart action<sup>3</sup>. Traction on the stomach, the suction of the tracheo-bronchial tree, and manipulations about the hilum of the lung in the presence of hypercapnea may produce either severe bradycardia or possibly cardiac standstill<sup>4</sup>. These reflex changes are also associated with hypotension which may be dangerous because of the subsequent diminished perfusion of vital organs.

\*The author was a guest speaker at the Midwinter Clinics of the Colorado State Medical Society, February, 1957. This paper was prepared especially for the Rocky Mountain Medical Journal. From the Department of Anesthesiology, Columbia University, College of Physicians and Surgeons, and the Anesthesiology Service, The Presbyterian Hospital, New York City.

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As though this were not problem enough, the period of recovery from carbon dioxide retention is also fraught with danger and difficulty. It has now been well established that the sudden withdrawal of carbon dioxide from an acidotic patient can, in the instance of cyclopropane, lead to a severe and profound hypotension. This syndrome is known as "cyclopropane shock." Even more dramatic than this circulatory derangement following the rapid correction of hypercapnea has been the development of ventricular tachycardia and fatal ventricular fibrillation<sup>5</sup>. It is necessary to reduce the carbon dioxide tension slowly over a period of fifteen to thirty minutes to avoid death in the dog<sup>6</sup>.

### Carbon Dioxide Retention

It does not seem necessary to belabor further the point that retention of carbon dioxide during any form of general anesthesia is an ever present hazard, that it is extraordinarily difficult to detect by ordinary clinical means, and that its repercussions upon the circulation in the form of irregularities of cardiac rate and rhythm, hypotension, and sudden death from cardiac standstill are potential threats. Logically one could surmount this type of difficulty by providing for efficient and adequate ventilation at all times during anesthesia. This is ideal but, like other ideals, it is not always a practicable reality. Furthermore, the production of vigorous hyperventilation, which is sometimes necessary to maintain normal blood carbon dioxide tensions, may produce an effect upon the circulation which is deleterious per se. More work must be done to define the precise nature of these changes. For the present at least, it is sufficient to state that the imposition of positive pressures upon the airway of a patient whose circulation or respiration is already compromised from other causes may prepare the way to circulatory failure. It is difficult to escape the judgment that the effects of hypoventilation are so frequent, so difficult to diagnose, and sometimes so difficult to treat that the establishment of a state of general anesthesia should be one that is undertaken with due and mature consideration for the maintenance

of effective ventilation to offset the development of serious circulatory effects.

### Manipulation Within the Airway

It is also necessary to manipulate the pharynx, the larynx, and the trachea of patients subjected to general anesthesia. This purpose is one that is commonly exercised and is one that is necessary to assist in the establishment of normal ventilation. It does no good to move gases in the proper volume and under the proper pressure through an airway that is not open. Early studies in this aspect of anesthetic manipulation suggested that certain circulatory disturbances could originate from mechanical stimulation within the air passages. These reflexes were termed vagovagal since the afferent and efferent paths of the reflex were assumed to be the vagus nerve<sup>7</sup>. Subsequent electrocardiographic studies by Burstein, et al., found that the common cardiac changes following such stimulation as endotracheal intubation consisted of increases in rate and a variety of arrhythmias; the most frequent being sinus tachycardia. It was concluded from these observations that circulatory changes incident to the manipulation of the airway were very frequent, occurred in the majority of patients, and were probably associated with increases in cardio-accelerator or sympathetic tone, rather than vagal tone<sup>8,9</sup>. King and his associates demonstrated that laryngoscopy usually produced an increase in blood pressure and less frequently an increase in heart rate in light anesthesia. Intubation of the trachea uniformly produced an increase in blood pressure and an increase in heart rate. As anesthesia was deepened the changes in blood pressure and heart rate associated with laryngoscopy and endotracheal intubation were less important. These circulatory changes did not appear to be related to a specific anesthetic agent but occurred with all agents. Depth of anesthesia minimized the changes observed<sup>10</sup>.

### Light or Deep Anesthesia

These changes in light anesthesia suggest that the performance of this type of manipulation during light general anesthesia may pose a strain upon the myocardium that will be poorly tolerated by patients with diminished myocardial reserve. On the

other hand, a vexing problem is posed since a weakened myocardium may also not tolerate anesthesia of sufficient depth to minimize these reflex responses from endotracheal intubation without producing hypotension. It has also been shown that cough, strain, or reaction upon the tube in light general anesthesia will impose circulatory disorders due to the physical transmission of increased intrathoracic pressure to the heart and the great vessels<sup>10</sup>. However, the production of cough and reaction on the tube during general anesthesia in patients with severe heart disease, may produce a serious circulatory collapse which cannot be relieved with ease or even with certainty. On the other hand, the production of cough during the instillation of topical anesthetic agents into the respiratory tree in these patients, prior to endotracheal intubation, is not associated with the circulatory depression that occurs during general anesthesia<sup>11</sup>. With respect, therefore, to the problem of manipulation in the airway, it appears certain that these manipulations during anesthesia result in changes of cardiac rate and rhythm and in a pressor response in patients with healthy hearts. These developments are more noteworthy in light anesthesia than they are in deep anesthesia and they are not related to the type of anesthetic agent used, but rather to the depth.

#### **Influence on Renal Circulation**

It is of interest to examine briefly the behavior of the kidney circulation in the anesthetized state. There are at least three critically important aspects of renal function which have a bearing on the ultimate welfare of the surgical patient. The first of these is the kidney as a circulatory organ; secondly, is the kidney as a regulator of acid base balance; and finally, there is the role of the kidney in the control of water and electrolyte metabolism. Although all these aspects of renal activity are of interest and important to the welfare of the surgical patient, only a few aspects of these derangements of renal activity can be mentioned.

It is not always appreciated that the kidney is a circulatory organ of considerable importance. Approximately 25 per cent

of the cardiac output normally goes through the kidneys in each unit of time. During general anesthesia, regardless of the anesthetic agents used, the renal blood flow is reduced significantly<sup>12,13</sup>. The greatest reductions are associated with the greatest depths of anesthesia. The diminution of blood flow is apt to be more profound with cyclopropane than it is with the other inhalation agents. This is but one illustration of the tremendous alteration in circulatory dynamics which goes on even with well conducted general anesthesia. It implies an extensive redistribution of blood flow throughout the body. At the present time neither the quantitative nor the qualitative nature of this readjustment of blood flow is well understood. Again, one must point out that this rather tremendous change of perfusion of blood through a major organ (the kidney) is not detectable by any of the clinical means available for operating room measurements.

There is only fragmentary evidence at this time as to the possible part that the kidney may play in the regulation of acid base balance during general anesthesia. The information which is at hand suggests that the kidney's ability to compensate for the changes in acid base balance which were described previously is greatly impaired. The well recognized inability of the kidneys to tolerate abnormal loads of salt in the postoperative period may be related indirectly to the influence of anesthesia. This relationship is, at best, tenuous and may consist in a "pre-conditioning" of renal tubular cellular activity in some manner which interferes with normal function in the postoperative period.

#### **The Effect of Local Anesthetic Drugs on the Circulation**

Extensive studies have been completed on the influence of spinal anesthesia upon the circulation in man. It is generally agreed by most observers that the specific effect of a given local anesthetic drug is of lesser importance by far than is the physiological derangement introduced by high blockade in the subarachnoid space. It is also agreed that there is a fall in blood pressure which is associated with a fall in cardiac output during high spinal block.

representing a plus-minus charge. This is very significant; the shedding of the negative component of the charge serves as the origin of beta rays. The neutron is the most important instrument of nuclear fission and the atomic bomb.

### Atomic Structure

We may now proceed to the building of an atom. Hydrogen is the simplest of all elements. It has one nuclear proton and one electron in its single orbital shell. If to the nucleus, one proton is added at a time and at the same time one electron is added to the shells, it will be found that by this synthesis one moves directly up the periodic table of elements. There will be produced in regular order, helium, lithium, beryllium, and on up through all the 92 increasingly heavy elements. At the level of uranium there will have been added 92 protons and 92 electrons distributed in seven orbital shells.

In this construction, neutrons must also be added. Above hydrogen, every nucleus contains neutrons. In the smaller elements, the ratio of neutrons to protons is about unity; but as nuclei increase in mass, there is a disproportionate increase in the number of neutrons. In uranium, the unequal distribution has reached a ratio of 146 neutrons to 92 protons. It is believed that in some manner the neutrons oppose the disruptive forces of electric repulsion when an increasing number of positively charged protons are closely packed within the nucleus.

### Atomic Weight and Atomic Number

The atomic structure outlined above leads to the definition of atomic weight and atomic number. The *atomic weight* (better termed the mass number) of an atom is the sum of its protons plus neutrons. This is indicated by a numeral placed at the upper righthand corner of the chemical symbol of the element. Thus,  $I^{131}$ .

The *atomic number* of an atom is the sum of its protons. This is indicated by a numeral at the lower lefthand corner of the symbol. Thus,  $_{53}I$ . Since the number of protons determines the element, the atomic number identifies an element quite as well as its chemical name.

### Isotopes

The concept of atomic weight and atomic number provides the definition of isotopes. *Isotopes are elements having the same atomic numbers but different atomic weights.* The atomic number of an element never changes. It indicates the number of protons in a nucleus and, since protons alone determine the element, it follows that the atomic number remains constant. But the number of neutrons can and does vary over a considerable range in the same element. In every element neutrons contribute half or more of the atomic weight. Hence, the atomic weight is a variable.

A few illustrative examples can be mentioned. Phosphorus, atomic number 15, has five isotopes that range in atomic weight from 29 through 34. Iodine, atomic number 53, presents fourteen isotopes with atomic weights from 124 through 138. Krypton, atomic number 36, has nineteen isotopes between atomic weights 77 and 94. Every element in the periodic table occurs in two or more isotopic forms. For the ninety-two natural elements, a thousand isotopes have been identified. Of these, at least one isotope for every element is radioactive.

Herein is the rationale of radioisotopes. *Isotopes of the same element are chemically identical.* They display the same chemical reactions and cannot be separated by chemical means. Therefore, in a test tube or in the living tissue, a radioactive form can be substituted for its stable form and by virtue of its radioactivity it can be instrumentally traced as a molecular tag. If there is specific uptake by a tissue, it can serve as a means of local radiation therapy.

### Radioactivity

What is radioactivity? It is energy, transmitted from its point of release to some distant point through the agency of waves or particles in motion. Release of the energy is secondary to electron excitations and nuclear instabilities wherein an unstable atom is moving toward a stable state. It accomplishes this during a period known as its half-life. Nature insists on at least relative stability. Any unstable atom knows what method to follow in achieving sta-



bility. What constitutes stability was metaphysically predetermined by Creation.

Natural radioactivity is seen in the heavier elements and even down the periodic table as far as potassium. We have now learned to artificially impart radioactivity to every other element, including hydrogen. But physically and biologically there are no basic differences between the natural and the artificial forms.

The vectors of radioactive energy are numerous. X-rays arise from excitations in the deeper electron orbits. Gamma rays are emitted from excited atomic nuclei. Beta rays are electrons moving out of an unstable nucleus. They are either negatively or positively charged (positrons) depending upon whether they come from the transformation of excess neutrons or excess protons. Emission of a beta particle invariably causes transmutation of the element. Alpha particles (alpha rays) are the electron-stripped nuclei of helium. They indicate nuclear disintegration. Deuterons are the stripped nuclei of heavy hydrogen. Neutrinos are neutrally charged particles smaller than electrons that accompany beta emissions. Mesons form a group of particles larger than electrons recovered from nuclear spallation. Cosmic rays are a mixture of atomic fragments produced by collisions of atmospheric air with free protons and large atomic nuclei coming toward the earth from interstellar space with energies up to 80 billion electron volts. The presently discussed antiproton is a constituent of this avalanche.

### **Absorption of Radiation**

Radiation is absorbed in three ways:

1. By a photoelectric process. An incoming ray or particle strikes head-on against an atomic electron, ejects it from the atom as a photoelectron and thus is stopped by a surrender of its total energy.

2. By Compton Scatter. The incident radiation delivers a glancing blow to an orbital electron, moves on to strike another and so spreads its energy until this becomes exhausted. The electrons so displaced (Compton electrons) themselves become ionizing agents and thus disperse the

energy of the original incident radiation throughout the tissue.

3. By electron-pair formation. An x or gamma ray strikes a target atom. Its complete energy is converted to mass in the form of an electron plus a positron. This is an example of the Einstein principle of the equivalence of energy and mass. The newly produced electron moves out as a secondary ionizer. The positron is at once neutralized by an electron in a suicidal marriage which gives rise to two gamma rays known as annihilation radiation.

### **Ionization**

Radiations of whatever type cause injury to a tissue by physical ionization. This leads to far-reaching biochemical change. Ionization consists of the ejection of electrons from the external atomic shells by incoming radioactive waves and particles. These strike an orbital electron somewhat after the fashion of a billiard ball. The ejected electron is termed the negative ion. The total remaining atom, because it has lost one negative charge, is now relatively positive and is termed the positive ion. Together the two ions are termed an ion pair.

The pathologic effects of ionization are expressed as disruption of the atoms that make up tissue molecules. These are held together by chemical bonds that depend on the interaction of electrons in the outer atomic shells. When chemical bonds are broken the affected molecules fall apart and at once the chemical environment becomes locally incompatible with cell life.

### **Pathologic Reaction**

The chemical stroma of a tissue is composed of proteins in which cells exist in a medium of water and salts. Ionizing radiations attack these compounds. Proteins are coagulated, cell nuclei fragmented, histamine-like bodies are formed. Cell water is activated. Atomic hydrogen and OH radicals appear. Hydrogen peroxide is produced. Tissue enzymes are deactivated. Oxygen exchange is disturbed. Chromosomes are broken and genes displaced. Mitosis stops. Cell membranes change in permeability and osmosis is deranged. Glandular secretions are arrested. Extensive genetic injury may occur. From the ir-



radiated areas, toxic bodies arise which exert a generalized reaction. Radiation sickness is well known. Even in a parabiotic animal histologic changes occur that can be explained only on the basis of a circulating material in the blood stream. These constitute a few of the reactions secondary to local irradiation. When the radiation is total body, life does not survive an exposure above 500 roentgen units.

#### Conclusion

The contributions of Roentgen, Becque-

rel, Thompson, Curie, Rutherford, Einstein, Bohr, Chadwick, Lawrence and Fermi have now laid nuclear physics squarely at the door of Medicine. There is an increasing necessity for medical men to study and understand these matters. Nuclear physics and mathematics will now be added to medical education. This paper deals with a few of the basic principles. More than that, it suggests the fascination that attends a glimpse into the constitution of the Universe.

## Importance and Interpretation Of Routine Blood Counts\*

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*The author is concerned about the excessive use of the complete blood count which he considers a gross waste of the patient's money and the laboratory's time. Stress is placed upon the importance of the hemoglobin determination by a relatively simple method or the hematocrit determination which is slightly more accurate, but about twice as expensive. The physician must differentiate between those procedures needed as screening tests for the average hospital admission and those which are needed in differential diagnosis of a problem case. The physician is encouraged to actually take a look at the patient's blood slide. He can quickly determine grossly the white count and platelet count. A patient needing a red blood count should also have a reticulocyte count for use in the differential diagnosis of an anemia.*

IN THIS day of mounting costs of medical care and pyramiding of laboratory tests we, as physicians, must obtain adequate laboratory studies without pricing our care out of reach of the patient. It is the purpose of this presentation to assess the hematologic

studies now available for the study of a patient in any hospital, to eliminate the superfluous, and above all, once and for all, to lay to rest the ghost of the C.B.C. (complete blood count). We must differentiate between those procedures needed as screening test for the average or routine hospital admission and those which are needed in differential diagnosis of a problem case.

\*Presented at the 53rd annual session of the Wyoming State Medical Society at Moran, Wyoming, in June, 1956.

### Useful Determinations

The peripheral blood is characterized by the presence of red cells, white cells and platelets. Ideally we would like to estimate the amount or number of each. This may be done much more cheaply than the cost of a C.B.C. at an average hospital.

First, as regards the red cells, there are available determinations of hemoglobin, red count, hematocrit and red cell volume. The last may be dismissed as a routine clinical procedure. We are concerned with cost and accuracy in measuring the total number or volume of red cells. The red count is so much more inaccurate than the other two as hardly to merit further discussion. There is no place for a red count as a screening procedure to determine whether anemia is present or not. The red cell count should only be used in the intensive study of the type of anemia present in a diagnostic problem, Hemoglobin and hematocrit are approximately equal in accuracy, with the hematocrit holding a slight edge. Hemoglobin determinations are about one-third as expensive as hematocrits (except micro-hematocrits). In any case emphasis should be placed upon the fact that these three determine concentration, not total number or volume of red cells. In the overwhelming majority of cases, concentration, number and volume are so closely parallel as to make concentration a valid substitute for the other two. A major exception is immediately following hemorrhage or dehydration.

The white count is a standardized procedure. With increasing reliance upon technicians we have lost sight of the fact that an approximation of the white count may be made by the physician from a careful inspection of the thin end of a peripheral blood smear studied under a magnification of about 100. By no means is it possible to estimate cells within an accuracy of 1,000, but any physician, and possibly a well-trained technician, should be able to determine if the white count is low, normal, elevated or grossly elevated solely on the basis of a one to two minute *low* power study of the thin end of a blood smear. In a routine hospital admission this is all that is needed. An obvious requisite, until

proficiency is acquired, is a control smear with a normal white count. This may sound like a radical suggestion, but conservatism and tradition have little place in light of present day problems.

### Platelet Count

Platelet counts, even in the most practiced hands, are notoriously unreliable. From my own experience I would estimate that they are completely unreliable in 70 per cent of American laboratories. However, careful examination of a peripheral blood smear may replace a count. By study of the thin end or "trailers" of a smear an evaluation of the number of platelets may be made, with the knowledge that a control smear should always be available until such time as the examiner is proficient enough not to need this aid. If platelets are easily seen under low power (100x) they are abnormally large and the count is too high. If they are barely seen at 100x they are normal. If not seen at 100x but seen clearly under oil immersion, they are normal. If found only with difficulty or not at all, or if very small and hard to recognize they are decreased to absent. Increased proficiency and accuracy will be the reward of anyone who takes the two to three minutes time to utilize this valuable procedure in the differential diagnosis of a hemorrhagic diathesis.

### Differential Count

The differential count is an example of the "magic of numbers." The physician insists on an accurate count. In the overwhelming majority of cases what he really wants to know is whether his patient has a differential falling within the normal range of variation. The few exceptions are deserving of his attention, not just that of a technician. As chief of laboratories in an Army hospital, due to a shortage of a trained technician, I did all differentials myself for six months by simply scanning the smear under low power and estimating the differential. Since my colleagues would have refused to accept "normal" instead of a list of numbers appended to the various cells in the proper boxes on the report slip, I always listed the results in terms of percentages that I had estimated, of course

being careful never to submit a slip with 70 polys and 30 lymphs. Spot checks failed to reveal any additional information obtained by counting the cells. Using this qualitative method, two cases of leukemia, and several of infectious mononucleosis, and a thrombocytopenic purpura were detected in a hospital attached to a separation center processing supposedly normal soldiers. From having run a hematology laboratory for over twelve years, it is my impression that the average technician performing a differential is so engrossed in counting that she doesn't see the cells. This is a direct result of our undue emphasis upon what I choose to call "the magic of numbers."

#### **Reticulocyte Count**

The reticulocyte count is easily the most neglected of all hematologic determinations. A good general rule is that any patient needing a red count also should have a reticulocyte count. Put in other terms, a reticulocyte count is of major importance in the differential diagnosis of an obscure anemia. These two determinations are not screening procedures, but should be utilized only in the differential diagnosis of an anemia. To those who profess alarm at this statement for fear of pyramiding the amount of laboratory work, I hasten to answer that in the great majority of cases the error is that too many red counts are ordered, not too many reticulocyte counts. The reticulocyte count is a measure of the rate of production of red cells. Since practically all hemolytic anemias are accompanied by an increased rate of formation of red cells, the reticulocyte count is frequently a valid but indirect indication of hemolysis. At this point it would be wise to emphasize that hemolysis may be four times as rapid as normal without development of jaundice and six times normal without anemia. The observant physician may save his patient the expense of a reticulocyte count by estimation of the number of diffusely basophilic red cells in the differential smear.

#### **What Tests to Use**

Having reviewed the various tests now easily available to any physician, the question arises, which should be ordered and

when? Unfortunately, due to inertia, lack of time, or failure to understand the problem, a "C.B.C." is usually ordered. This consists of a red and white count, hemoglobin, differential and usually hematocrit, a gross waste of the patient's money and laboratory's time.

The first and most common situation to consider is the patient who has no specific hematologic problem. This group will encompass at least 95 per cent of all hospital admissions. Either the blood is normal, or the cause of any deviation is obvious. Examples are the leucocytosis of pneumonia, the anemia of nephritis, cancer and rheumatoid arthritis, and the polycythemia of chronic pulmonary insufficiency. The only purpose of a blood count is to assure the physician that nothing unexpected or undiagnosed exists and for this he requires a *screening* test which should be accurate enough to demonstrate the existence of deviation from what the patient should have. This may best be done by a hemoglobin or possibly microhematocrit, a white count and differential smear. Barring unanticipated abnormalities nothing further is needed. With application of this principle at the University of Colorado Medical Center, red counts have been cut to one-tenth their former number. At \$2.50 each, this represents a major savings which has readily amortized the intensive study of the few problem cases.

#### **Problem Cases**

The latter deserve the physician's complete armamentarium and the old adage "firsttest with the mostest" is well taken. Axiomatic in study of aberrations of the red cells is the necessity not only of defining the presence of anemia or polycythemia but of characterizing cell indexes *before* treatment. There is no patient so seriously ill that a specimen cannot be withdrawn for hemoglobin, red count, hematocrit, bilirubin or icteric index, and a smear carefully made for study of white cells, platelets, red cells, and reticulocytes. These slides should not be discarded at least until such time as the patient's diagnostic and therapeutic problems have been adequately handled. As a practicing and consulting hematologist I

know of no more serious error than failure to obtain this basic information *prior* to confusing the issue by mixing the patient's cells with normal cells by transfusion. If the patient is compensated, urinary output is adequate, and no distress exists, treatment of *all* types should be withheld as long as possible to allow more complete diagnostic studies including a marrow aspiration to obtain tissue for sections and smears. Under these circumstances there is no harm in not treating a patient with a hemoglobin as low as 6.0 grams for as long as a week, provided the patient is kept under careful observation and presents no evidence of continuing blood loss or of falling hemoglobin. Contrast x-ray studies of the gastrointestinal tract in such patients are poorly tolerated and should be withheld until the hemoglobin is at least 9 or 10 grams. I would like to re-emphasize the need for decreased laboratory work in screening the routine cases and the intelligent requesting of all needed studies *prior* to treatment in the problem case.

The third general problem is that of follow-up of a patient. All too often hemoglobin, red count and hematocrit are determined when only one, the cheapest and most accurate, is needed. In the case of

leucocytosis, once the differential is known to be normal or in agreement with the clinical picture, there is little use of repeating it. In our own hospital, where house officers tend to be quite liberal in ordering laboratory work, I have made a policy of requesting that a house officer, ordering more than two differentials during the hospitalization of a patient, examine the slide himself. If the differential is normal, repetition is not needed; if abnormal, it deserves the physician's personal attention.

### Conclusion

As a group we have been too lackadaisical in ordering laboratory work. While complaining of excessive cost to the patient we have taken refuge in the C.B.C. Our only rational approach is to order the minimum needed in the average case, hemoglobin or hematocrit, white count and differential, realizing that the purpose of these studies is not to diagnose an anemia of unknown etiology but to act as a screening device similar to a chest microfilm. When faced with a situation that needs explanation, we must focus all our aids on the patient prior to treatment. In this way a decrease in cost of routine studies will help amortize the study of the diagnostic problem.

## Cerebral Vascular Lesions\*

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### *Current concepts of diagnosis and treatment of cerebral hemorrhage, thrombosis and embolism.*

**C**EREBROVASCULAR lesions are common. To all physicians their care is a problem. It is predicted that this will increase in a growing population with an increasing longevity. Cerebrovascular lesions are now

the third most common cause of death in the United States.

### The Clinical Problem

The dramatic event in cerebrovascular lesions has earned the epithet of stroke. Popularly christened, there is a connotation that the patient is struck down. The event

\*Read at the Colorado State Medical Society Meeting, Sept. 8, 1956, Estes Park, Colo.

of stroke usually proclaims that advanced clinical disease is present. Medical management, therefore, faces two problems. The first is the primary disease and the second is infarction or hemorrhage, the pathologic correlates of stroke. This may be the terminal episode in the protracted disease. Bell estimates that of fatal paralytic strokes, 60 per cent are caused by hemorrhage and 40 per cent are secondary to thrombosis. This discussion will be confined to infarction and hemorrhage.

Stroke may be heralded by headache, vomiting, confusion, stupor, and vital function impairment. Later, as infarction or hemorrhage are delimited, the focal signs of hemiplegia, aphasia, hemianopsia and bulbar palsy become apparent. The severity of the latter largely determines the probability of recovery or exitus from stroke. The ultimate prognosis depends on the severity of the underlying disease and the condition of the cerebrovascular circulation.

#### **The Cerebral Circulation**

The brain is supplied through the internal carotid and the vertebral arteries. These four large diameter trunks empty into the Circle of Willis. From this annulet reservoir, of relatively small bore, branches distribute blood to localized areas of the brain. In failure of a branch of the Circle of Willis, collateral supply is available from arterial systems in adjacent areas. It is apparent from a study of such failures, with resultant brief stroke, that this collateral supply is important in recovery from infarction. The frequency of severe stroke in infarction, however, indicates that collateral circulation is often inadequate. Failure of the cerebral circulation may be caused by disorders of cardiac output, intrathoracic lesions, and abnormality of the cervical vessels. In stroke, all systems of the body should be searched for a capricious etiologic factor.

Thrombosis and embolism of the cervical carotid and vertebral arteries is probably more common than has been reported. Thrombosis at the origin and the bifurcation of the common carotid artery causes stroke. In the latter case angiography may aid in diagnosis.

#### **Physiologic Considerations in Cerebrovascular Lesions**

Cellular function in the brain requires an intact circulation. In these cells energy is not stored but must be supplied at a relatively constant rate. Liver-stored glucose, when circulated to the brain and oxidized, supplies this energy. The relatively high requirement of these cells for glucose and oxygen demands about 17 per cent of the left ventricular output or according to measurements of Kety and Schmidt, about 750 ml. per minute. It is estimated that of the total body oxygen requirement, 20 per cent is utilized by the brain. Therefore, the magnitude of circulatory volumes has an important bearing on the character of the pathologic lesion and its treatment.

#### **Pathogenesis of Infarction and Hemorrhage**

Infarction or hemorrhage may occur in morbid anatomic lesions of the vessels or in failure of flow. More particularly, transport failure occurs when (1) the supplying arteries are obstructed, (2) the return of blood away from the brain is prevented by venous obstruction, or (3) cardiac delivery of blood is sufficiently decreased to result in deficient cerebral flow. Increased or decreased intravascular pressures are also important in the production of cerebrovascular lesions.

Thrombosis is the most common vascular disorder of the brain. As thrombosis develops, occlusive reduction of cerebrovascular flow usually produces necrotic infarction. Infarcts are of two types, referred to as ischemic or red infarcts. Petechiae in the cortex portion of the infarct distinguish grossly the latter from the former. It would appear that ischemic infarction occurs, following thrombosis in atherosclerosis. An essential arterial alteration in atherosclerosis is the plaque in the intimal lining. On such a plaque, thrombus formation may occur.

Stroke may be precipitated in atherosclerotic patients, without cerebral thrombosis, by decreased cardiac output. An example is the patient with acute coronary thrombosis whose first sign is hemiplegia. The decreased cardiac output is insufficient to overcome the increased cerebrovascular resistance to flow. Unless cerebral athe-



rosclerosis is present, acute coronary occlusion rarely has hemiplegia as the initial sign. However, in cardiac asystole or arrest, even in young people, clinical and pathologic examination suggest that cerebral ischemic necrosis is widespread.

Thromboses of veins and sinuses, previously common in infectious diseases, are less frequent since the advent of antibiotics. Thus one milestone in the conquest of cerebrovascular disease has been passed.

Neuberger has said that the pathogenesis of bleeding in cerebral hemorrhage in hypertensive vascular disease is yet a moot question and is as intriguing now as it was thirty years ago. Probably three conditions are essential for the development of classical cerebral hemorrhage in hypertensive patients. (1) Hypertension must have been long present. (2) Arteriosclerosis must be advanced. (3) There must be sudden fluctuations in hypertensive blood pressures.

The nature of the lesion of the vessel wall which results in bleeding in classical cerebral hemorrhage is unknown. Certain plausible mechanisms deserve study.

Disorganization of the structure of the arterial wall is essential. The wall frequently appears thickened and the lumen attenuated. One may observe disease of the vaso-vasorum with intramural dissection, small aneurysm formation, angioneurosis, separation of layers, cellular and chemical infiltration, adventitial rupture and extravasation. One or more of these alterations are in evidence in many cases. Occasionally, however, no cause can be assigned. The point of bleeding often cannot be identified or has been destroyed, in which case the evidence is beclouded. In hypertensive hemorrhage, venule change and flow also participate.

Embolism has been considered an infrequent and static process. Recent study has modified these views, according to Adams. Its incidence is probably greater than previously judged. One must remember that in rheumatic and coronary heart disease, embolism is common. Fisher and Adams believe that embolism is a dynamic lesion. The embolic obstruction may be temporary, permanent, undergo fragmentation, re-embolize into smaller vessels, per-

mit re-perfusion of previously infarcted areas or undergo canalization. However, much remains to be learned in reference to the process of embolism.

### Stroke in Cerebral Thrombosis

In thrombosis, prodromal symptoms may have been present for a few hours, occasionally for days. Paresthesiae are common. Initially, confusion may increase for a few hours. Aphasia, likely to be present if the dominant brain is involved, increases the task of the historian. The patient may be unable to express himself or to understand what he hears or sees. In supra-tentorial involvement alteration of consciousness and paralysis are prominent signs. In cerebellar and partial brain stem infarctions vomiting, vertigo and ataxia are more characteristic. Thus in thrombosis of the posterior inferior cerebellar artery (Wallenberg Syndrome) the patient is struck down by associated vertigo and ataxia, not coma and paralysis. As a result of vertigo and ataxic stance, he is unable to stand but he talks, retains consciousness and usually crawls to repose.

### Treatment of Thrombosis

Vital signs are recorded and an assessment is made of the seriousness of their alteration. The use of an oxygen tent is often advisable. This is particularly true if there is decreased cardiac output. Evaluation of cardiac function is performed routinely. The patient's airway is inspected and maintained. Suction is kept at the bedside and used frequently. Postural drainage and position of the jaw are important. Airway obstructions are relieved by tracheotomy. This should not be performed unnecessarily, nor delayed when indicated. In respiratory failure, a mechanical respirator may be necessary.

Phenobarbital or chloral hydrate is useful for restlessness. If headache is severe an analgesic in small doses is administered. An ice pack on the head is harmless and is an excellent and inexpensive pain reliever. Sedatives and analgesics are used with caution in respiratory failure. Periodic neurologic examinations are performed. In bladder dysfunction a retention catheter should be in place.

Fluid requirement should be satisfied in accordance with the patient's general condition. In the unconscious patient, 1,500 c.c. is given daily by slow intravenous drip. A 10 per cent solution of glucose in water is efficacious. Nasal-gastric tube feedings can be used after consciousness is regained. Gastric dilation is to be avoided. This, in itself, is a serious complication, and also may interfere with cardiac function by vertical pressure transmitted through the diaphragm. Gastric dilation and the over-administration of fluid are to be avoided particularly in pulmonary atelectatic edema. Enemata are ordered each third day if necessary. A bowel lubricant is given nightly.

Inspection of pressure points for the erythema of early decubitus should be performed daily. Decubitus requires replenishment of tissue protein. Therefore albuminuria and urinary infection are corrected. Ambulation begins early and increases as the patient's condition permits. The patient dangles first, then gradually moves from bedside chair to wheel chair. Weight bearing on paralyzed extremities is permitted in accordance with motor power. Muscle spasm is avoided. Neural weakness is carefully localized and recorded. Physical therapy is directed in accordance with the localization and magnitude of the weakness.

In thrombosis or intermittent insufficiency within the basilar system or at the bifurcation of the carotid artery anticoagulant therapy may be advisable. Millikan and Associates suggest such therapy as soon as basilar involvement of this type is diagnosed. Strict supervisory care is exercised even to the levels of occupational restoration or graduated retirement.

#### **Stroke in Cerebral Hemorrhage**

In classical cerebral hemorrhage, hypertension usually has been long standing and arteriolosclerosis has been established. Trauma, saccular aneurysm and vascular malformation, neoplasm, and blood dyscrasia cause types of non-classical cerebral hemorrhage beyond the scope of this discussion. In approximately one-half of the cases of classical cerebral hemorrhage, atherosclerosis is associated with arterio-

losclerosis, often as a relatively independent entity.

The onset of cerebral hemorrhage is characterized by severe headache and increasing confusion, and is followed shortly by alteration or loss of consciousness. The hemorrhage may require twelve to twenty-four hours for its complete development.

Localizing findings are often difficult to evaluate in the period of the acute hemorrhage. The deep tendon reflexes in the paralyzed extremity are not obtainable for some hours or days after hemorrhage. This is often a dependable sign. A helpful localizing sign is the rate of fall of the dropped extremity. The paralyzed extremity, when lifted a few inches off the bed, falls without resistance. The normal extremity appears partially supported. This difference is often apparent immediately after the hemorrhage. The ophthalmoscopic character of the retinal vascular pattern is of assistance in determining the severity of the hypertension and the arteriolosclerosis.

The patient may be struck down. Then the pulse is slow and full, and may continue for hours after respiration has ceased. Leucocytosis and fever are present. Terminally hyperthermia may develop. Vital function impairment is severe. Cheyne-Stokes respiration follows and later complete failure occurs. This is one of the factors which accounts for the high mortality rate of 90 per cent in cerebral hemorrhage. The prompt use of mechanical respiration in selected cases prevents anoxic brain damage and pulmonary atelectatic hemorrhagic edema. In about 75 per cent of cases the spinal fluid contains gross blood and is under increased pressure.

After the patient has recovered from the acute hemorrhage, treatment is directed towards rehabilitation and hypertension. Wolf and Associates believe that antipressure drugs and surgical operations on the sympathoadrenal system have not gone far in solving the problem of therapy in essential hypertension.

#### **Stroke in Cerebral Embolism**

In cerebral embolism there is sudden arterial obstruction. A red infarct frequently follows. Emboli arise most often from

the heart valves, auricles or walls. In septal defects in the heart, emboli from a peripheral vein may by-pass the lung and reach the brain. The embolus of bacterial endocarditis is often infected. In this disease, cerebral blood flow may be further diminished by simultaneous coronary embolism, valvular insufficiency, and infectious arteritis. Cardiogenic embolism arises most commonly in the mural clot in rheumatic heart disease and myocardial infarction.

Premonitory symptoms are unusual. The onset is sudden and the symptoms may be at once severe. If large arteries such as the basilar artery are involved, coma, convulsion and vomiting may occur. Vomiting in the semicomatose patient may result in aspiration which is serious. Tracheotomy and bronchoscopic lavage may be required. In embolism above the Circle of Willis, alteration of consciousness is often of short duration.

In general the treatment of the acute phase of cerebral embolism is the same as for hemorrhage. The patient is kept in a

state of quietude to prevent further embolization. In selected patients anticoagulant therapy may be considered if hemorrhage has been excluded and hypertensive disease is not present. In the absence of mural thrombus and phlebitis, bacterial endocarditis should be excluded. Blood samples are cultured. If positive, antibiotics in high doses are administered intravenously. Neurologic examination should be performed in all patients with embolism. Often the neurologic lesion is subtle but severe. This is particularly true in subacute bacterial endocarditis. In this disease the emboli may cause cerebral infarction or infectious arteritis resulting in aneurysm formation and cerebral hemorrhage.

#### Summary

Cerebral stroke is common and probably will increase in incidence in the future. Increased understanding of the pathogenesis of thrombosis, hemorrhage and embolism has laid the foundation for further advances in our knowledge of stroke.

## The Family Doctor in Parent-Teacher Consultation

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*As a director of two small community clinics in Mental Health in Northern Colorado, and after five years of conferring with family doctors, the author's comments will serve a practical advantage to every family physician.*

THE family physician, regardless of his interest or the nature of his practice, is frequently consulted by parents and teachers about a specific behavior problem in a child. Consultations of this sort are often difficult for the psychiatrist and other personnel intimately involved in the understanding

and treatment of psychiatric problems in childhood. They are particularly difficult for the family doctor who may have little interest in this field, or whose time is heavily occupied in the practice of medicine dealing with organic problems. However, regardless of the interest or the preoccupa-

tion of the physician, this type of consultation constantly confronts him and demands his attention.

The purpose of this paper is to discuss certain factors involved in the request for consultation concerning the behavior problems of children, and to evaluate the role of the parent and teacher in their appraisal of a given problem. No specific behavior disorders in children are discussed, for the emphasis in this paper is directed toward the parent and teacher and their own personal involvement in the problem.

The parent or teacher frequently asks the question, "What can I do to correct this problem?" This is a dynamic question and one which immediately places the physician in the role of the sage who is expected to deliver five rules-of-thumb which, if properly executed, would insure solution to the problem and guarantee sound personality development in the child. The implications in the question are legion. The inquirer is asking what environmental changes he may make to correct the difficulty, or he may be inquiring as to what attitudes he may acquire to relieve the situation. He may be wondering, also, what alterations in the way he is currently doing things can be made to bring about the desired change. Actually, the parent or teacher who makes such an inquiry is asking "What can I do *for*, *to* or *about* this child?"

#### **Point of View**

This approach assumes that the child's behavior is truly pathological and that the parent or teacher has been correct in his analysis of the situation. In effect, such an individual disregards the possibility that the child's behavior may not be too unusual. He also disregards his own personal anxiety or prejudice and the possibility that there may be a need for altering his own personality reactions. It very clearly indicates that if the problem is to be solved, the solution is to be brought about by changes which must be made by the youngster. This, at best, is not a very healthy outlook, especially when we recognize that parents and teachers have problems, too. The parent or teacher with this approach is seen with such frequency that it is worthwhile for the family doctor to keep in mind the possi-

bility that every client seeking such consultation may have this attitude to some degree.

In the event that the child is seen incorrectly as a behavior problem, and the parent and teacher fail to recognize their own prejudice in relationship to the child, a difficulty exists in the consultation which must be worked through with them before any evaluation of the child can be accomplished. To understand more completely the personality problems which parents and teachers have with their children, it is necessary to review some of the factors which we have come to recognize as being important in sound personality development, and some reactions to them.

The statement is often made that we cannot teach a parent or teacher to love and accept his child. Love is an emotional response which comes from within. It is fundamental in the personality and implies a sufficient degree of security in the individual himself, that he has the ability to give love in an interpersonal relationship. While we cannot teach this ability to love, we have been able to teach an understanding of the specific needs for sound personality growth and development. The learning, in regard to the characteristics of a sound emotional environment, seems to be rather complete, for in most schools and in many, many homes, there is an acceptance of the basic principles of mental health. We have recognized, for instance, that a child must acquire a sense of security. He must be strong within himself, if he is to cope with his own personal problems and his relationships to his fellow men. As opposed to our earlier concepts, wherein the child was dominated and controlled in his behavior by his elders, today we encourage the independence of the child—an independence which can come only out of inner strength.

#### **Stepwise Development**

We have also learned that personality development proceeds in a stepwise direction from helplessness in infancy to independence in adulthood. It has been common knowledge that each of these various phases of personality development must be accomplished before the child is ready to proceed on to the next stage. It is also well under-

stood that every phase of personality development has its problems—and these are all related to the acquisition of independence. It is generally accepted that growth in interpersonal relationships develops out of an interaction of personalities. A child must have practice in making adjustments to the rest of his world. Personality adjustment is a constantly changing equation which is mastered only with meeting problems and working them through to solutions.

As has been indicated above, the need for developing a sense of security, a stepwise development of the child, and a need for interpersonal relationships have been well accepted in both the home and school, and we have learned the significance and importance of these needs. Through the understanding of these needs, both the home and the school have learned many ways through which the child may be helped to find satisfaction of them.

The need for security has been satisfied by giving the child a sense of success, even if it means limiting the task so that it will be in keeping with the child's ability to complete it. The child also has been given approval and recognition for his successes. These satisfactions come from his parents, his teachers, and his friends. In general, the home and the school have become more friendly and compatible places where the child may find that his particular social or cultural background is looked on with interest by his friends and associates. There is little question that the opportunity to participate in group activities, both at home and at school, lends much to the feeling of security.

The recognition of the stepwise development of the child is clearly seen in the present day concern with the "learning age," or "emotional age," rather than the chronological age of the youngster. In the modern education system, the child is placed in the grade level of which he is capable. The various grade levels have individual expectations placed in them, with the final result that the child has an opportunity for success. Teaching today is accomplished with less ridicule and less pressure, and with more of an understanding of the individual child's limitations.

### Forming of Relationships

The home and the school allow much practice in the field of interpersonal relationships. The opportunity for self-expression and the development of respect for authority, out of mutual respect between the child and his elders, has given the child an opportunity to experiment in interpersonal relationships which he has never known before. The entire school program, from the "tell-time" of the tender years to the adolescent dances, is directed toward an opportunity to form relationships to the rest of the world. These are the things which we have learned about the needs of the child, and these are some of the things which we have done to accomplish these needs. Parents and teachers, alike, have accepted these principles. This is all for the good in personality development.

There remains, however, a real stumbling block to personality development and to the solution of personality problems, both at home and at school. This block is seen in the fact that parents and teachers have not accepted emotionally the things which, intellectually, they know to be necessary and good. Parents and teachers are so bound by their own emotions, their own personal needs, their own desire to extract a sense of security, appreciation, and love from the child, that they are unable to accept emotionally these things which they have learned.

A parent and teacher need to acquire success in the job of parenthood and teaching. The personality problem in the child, or his failure on any level, may irritate his elders and may be interpreted by the parent and teacher as evidence of their own failure. This leads to teaching by sarcasm, and a failure to regard the child and his individual needs. Here, all of the things which have been learned about the emotional environment of the child are lost. Fritz Redl has pointed out that we often describe a behavior pattern as abnormal if we find that it is irritating or offensive to us, personally<sup>1</sup>.

<sup>1</sup>Fritz Redl, "What Is Normal For Children," Case-work Papers, National Conference of Social Work, 1954, Family Service Association of America.



### Competition for Success

Parents and teachers need approval for themselves, and often seek to extract this approval from the children. In effect, they may compete with the child for this sense of approval. Ofttimes when a child becomes too popular or seeks too much attention, parents and teachers attack, as if to acquire more satisfaction for their own needs of approval. Again, parents and teachers need friends and the opportunity to socialize. They may be in competition with the child for their own social needs. At times, the socialization on the part of the child may repulse his elders, or may make him feel inadequate.

For the child, self-expression, which is so much a part of a sound emotional environment, may threaten the parents' or teachers' authority, with a resulting rebellion and further feeling of inadequacy on the part of the elders. By the same token, initiative, which we have learned to hold in such high regard in our children, may challenge the parents' and teachers' own initiative or authority. Here, the parent and teacher act out their own problems with the resultant disregard for the things which have been learned about the needs of children in their development. Thus, it would seem that in spite of all of the things which we have learned about the needs of the child, and all of the technics which have been employed to secure these needs for the child, parents and teachers, out of their own emotional difficulties, often have trouble in accepting emotionally the things they intellectually recognize to be sound. This may result in the failure to evaluate honestly

the child and his behavior, or it may cause him to be regarded as a behavior problem when, in fact, he may not be.

### Understanding by Elders

When the parent or teacher seeks a consultation with the family doctor in regard to a problem with a given child, the family doctor should first consider the meaning of the problem to the parent or teacher. When the problem is considered in terms of how offensive it is to the parent or teacher, or how threatened he is personally by the child and his activity, the problem itself may take on an entirely different light. An honest evaluation of the personal elements involved may change the opinion of the parent or teacher in regard to the nature or seriousness of the problem. It may also serve to point out that the solution to the problem comes on the basis of a warm understanding interpersonal relationship. Consultation with the physician asking what may be done to or for a child may be rendered sterile with this degree of understanding.

There are no rules-of-thumb for the solution to personality problems. In fact, environmental manipulations are rarely satisfactory. Perhaps the greatest service which the family physician can provide in consultation is to help the parent and teacher recognize that they are offended, challenged, or threatened by the child and that they must re-evaluate their own feelings if they are to be of real help to the child in a given problem. Until such time as they have their own emotions under control, the parent and teacher cannot realistically deal with specific problems in the youngster.

### AMEF SPEARHEADS FALL CAMPAIGN

The American Medical Education Foundation will launch an intensive fall campaign for contributions to the nation's medical schools. October and November have been selected as the months in which to appeal to physicians for individual donations.

To assist local committees the AMEF has prepared a new pocket portfolio with information cards and pledge envelopes. A new folder entitled "So They May Serve" has also been produced for use in local and state mailings. A new exhibit—first displayed at the AMA convention in New York—is available from the Foundation

office for state meetings. Featuring pictures of medical schools and gift checks to AMEF, this exhibit illustrates reasons why medical schools should be privately supported.

In a progress report as of July 1, the AMEF announced that the six million dollar mark of contributions from the medical profession had been passed earlier this year. The report also stated that so far in 1957 the AMEF income is 15 per cent higher than in the same period last year.

Physicians are urged to contribute generously to the Foundation during the remaining months of 1957.

# Surgical Treatment of Pelvic Inflammatory Disease\*

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*Diagnosis, differential diagnosis and treatment of this important syndrome are helpfully discussed.*

SINCE the advent of antibiotics, pelvic inflammatory disease occurs less frequently and, as a result, many of us have occasion to treat only one or two such patients each year. Because of this fact, it would be wise to review pelvic inflammatory disease from a general standpoint in order that we may better understand the rationale of surgical treatment.

Anatomically speaking, the tubes bear the brunt of pelvic inflammation simply because of their location, receiving infection from the uterus on the one hand or from the ovary and peritoneal cavity on the other. Etiologically speaking, the salpingitides fall into three main categories: those caused by the Neisserian organism, those wherein septic organisms are responsible, and tuberculous salpingitis. Since gonorrhea is by far the most common causative agent, our remarks will be most pertinent to this entity.

Neisserian organisms spread by direct continuity along epithelium to the endocervix where the organism finds an ideal location in the deep, poorly oxygenated recesses of the racemose glands. From the cervix, the pathway of spread is along the endometrium and out the cornu to invade the endosalpinx. The endometrium is quite resistant to gonococci but the epithelium of the tubes is extremely receptive, resulting in an acute inflammatory process distending the tubes with exudate which may drip

onto the ovary, posterior surface of the broad ligament, or into the cul-de-sac producing infection and abscess formation by direct contiguity. Septic organisms spread via the lymphatics and hematogenous routes to the extraperitoneal and interligamentous spaces causing parametritis and, later, abscess formation. This type of infection alludes chiefly to the streptococci and staphylococci organisms and is most commonly associated with septic abortion and puerperal sepsis.

The differential diagnosis between an inflammatory adnexal tumor such as the tubo-ovarian abscess caused by gonococci and the parametrial infiltrate caused by streptococci and staphylococci is not always easy. One point of differentiation is that the adnexal tumor has convex outlines and can be separated from the pelvic wall, whereas the parametrial infection is wedge-shaped with the base firmly adherent to the lateral pelvic wall and the blunt apex at the lateral border of the uterus.

## Tuberculous Salpingitis

Tuberculous salpingitis must always be borne in mind and differentiated from gonorrheal salpingitis. If adnexal masses are palpable in a patient who does not relate a previously occurring acute attack of inflammation, suspect tuberculosis. Also, suspect tuberculosis in the presence of weight loss, oligomenorrhea or amenorrhea, and when the pelvic inflammation does not respond to the usual chemotherapy. Most commonly, the tuberculous organisms reach

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the tube via the hematogenous route from a primary focus in the lung or the hilar lymph nodes. In the initial stages tubal mucosa and serosa may be studded with miliary tubercles, but later these coalesce to cause extreme dilatation and thickening of the tube. The infiltrate may undergo caseous necrosis and exude from the tube infecting the adjacent structures and forming dense, fibrous adhesions. Literature holds that 10 per cent of all inflammatory diseases of the tube are tuberculous in origin but in our experience it is far less common. Tuberculous salpingitis is often not discovered until surgery and in many instances the diagnosis is first disclosed when the extirpated tissue is examined microscopically.

At this point we will review the symptomatology and clinical findings in pelvic inflammatory disease since apparently this diagnosis is often made when no infection actually exists in the pelvis. This may stem from the fact that the term is so broad in its scope that it becomes a wastebasket diagnosis like the word "neurosis." Actually, the term pelvic inflammatory disease is indefinite and should be discarded as soon as one can establish a more accurate diagnosis on the basis of the infecting organism.

#### **Lab and Physical Findings**

Remember that in the acute phase of pelvic inflammatory disease the temperature is always elevated as are the sedimentation rate and the white blood count. These laboratory criteria are usually much higher than with other diseases in the pelvis. Clinically, adnexal tenderness is always present bilaterally even though a definite mass may be palpable only on one side. When first examined in the acute phase, one may elicit only extreme tenderness to manipulation of the uterus and palpation of the adnexa. Specific adnexal inflammatory masses may be demonstrable only after the acute inflammation has commenced to subside and tended to localize. Usually, the organisms are mobilized from the cervix during menses and may be ushered in with a sudden chill. The infected patient appears acutely ill and walks with a typical stooped or bent-over attitude in an effort to protect the

pelvic organs from the least bit of trauma.

Acute appendicitis, apptitis, pyelitis, ovarian cyst with torsion, endometriosis, ectopic gestation, and ureteral stone are often mislabeled pelvic inflammatory disease. Smears and cultures taken from the lower genital tract may be helpful in establishing a diagnosis but, by and large, 70 per cent of the diagnoses will be made on the symptoms, laboratory criteria, and the clinical finding of bilaterally tender adnexa with or without masses.

In the acute phase, treatment of pelvic inflammatory disease is directed toward keeping the patient comfortable plus bed rest and large doses of penicillin. There is no acceptable surgical treatment for acute salpingitis but should an abdomen be opened inadvertently as for acute appendicitis simply aspirate the pus prior to closure, but do not excise the tubes. Amazingly enough, a small percentage of patients are able to become pregnant after one and even two attacks of tubal infection.

Simpson and Curtis have shown that gonorrhea of the tubes is self-limited; the organisms die when the patient's temperature has been normal for a two week period. This is apparently brought about by hermetic sealing of the focus of infection with inflammatory exudate which prevents the bacteria and their toxins from entering the systemic circulation. Following the acute phase, the purulent exudate is gradually replaced with a serous fluid. Numerous adhesions may develop between bowel, omentum, uterus, adnexa, and pelvic peritoneum, coupled with the formation of inflammatory cysts of the adjacent ovary.

#### **Surgical Treatment**

The operation best suited to the treatment of chronic recurrent salpingitis should be adapted to the individual's pathology—the patient's age and difficulty of the undertaking being duly considered. Bilateral or unilateral salpingectomy, on first impression, seems a logical procedure but resultant impairment of ovarian blood supply causing cystic ovaries renders this operation worthless. Hysterectomy with or without removal of one or both adnexa seems best suited to older patients and to those complaining of

pain or menometrorrhagia and those in whom large adnexal masses are palpable. Removal of the cervix is tantamount at the time of hysterectomy to irradiate this focus of infection.

Young women with recurrent attacks of pelvic inflammatory disease present a greater problem. Doctor Falk, of Harlem Hospital in New York City, twenty years ago devised the idea of doing bilateral cornual resections upon these patients. His concept was based on the principle that gonorrhea spreads by direct extension from the cervix to endometrium and thence into the tube. Re-infection occurs either from a focus located in the cervix or by contact with an infected partner. By breaking this pathway of spread at the cornu, re-infection could be prevented without removal of all genitalia but with the continued maintenance of ovarian function. We reported a series of sixty-five cases handled in this manner with excellent results. Remember, the size of the tube should not influence your decision; in several of our cases the tube measured from three to five centimeters in diameter. A Pfannenstiell incision affords excellent exposure with minimal disturbance of existing adhesions. Careful examination of the ovaries is imperative since cornual resection should *never* be performed in the presence of cystic or abscessed ovaries. Ovarian pathology accounted for the removal of one tube and ovary in twenty-two, or 35 per cent in our series.

#### Treatment of Pelvic Tuberculosis

The treatment of pelvic tuberculosis is either medical or surgical and in most cases with tubo-ovarian involvement the combination is necessary to afford complete relief. Although each case must be individualized, anti-tuberculous drugs should be administered for as long as symptoms improve and pathology decreases or sufficiently long to prove medical therapy ineffectual. Streptomycin, isoniazid (INH), and para-aminosalicylic acid (PAS) in combination have proved most effective.

In the face of definite resolution of tubo-ovarian pathology, weight loss, fever, malaise, and continued pain, surgery is indicated. Also, the reappearance of positive

cervical or endometrial biopsies or the development of new pelvic masses is an indication for surgical intervention. Surgery should consist of total hysterectomy and bilateral salpingo-oophorectomy since failure to remove the cervix and ovaries may result in recurrence of the disease. Anti-tuberculous drugs should be administered for at least three months pre-operatively and continued post-operatively for a period of one year.

#### Treatment of Abscesses

Pelvic abscesses are located in the posterior cul-de-sac, in the adnexal area, or between the layers of the broad ligament. If these abscesses point into the posterior fornix or above Poupart's ligament, incision and drainage is in order. The judicious use of Chymar or Varidase may hasten absorption of the infected material. Occasionally the abdomen must be opened to remove an abscess that does not point but only after all evidence of acute infection has subsided and the patient has been carefully observed for a long period of time with no demonstrable change in the pelvic picture.

The principle involved in the treatment of post-abortion peritonitis and ruptured tubo-ovarian abscesses is the same as for any infection wherein collections of pus are present and adequate drainage lacking. These infections are almost 100 per cent fatal unless diagnosed early and surgical intervention employed immediately. One clue to remember is that these patients become increasingly worse in spite of large doses of antibiotics and supportive therapy. A rapid subtotal hysterectomy and bilateral salpingo-oophorectomy should be carried out with splitting of the cervix posteriorly into the vagina allowing for proper drainage. A two inch gauze pack placed in the cul-de-sac is gradually removed through the vagina during the first week following surgery. In the past decade, many such cases have been salvaged by astute diagnosis and the employment of immediate surgical intervention along with maximal antibiotic therapy.

#### Summary

In conclusion, we re-emphasize the importance of correct diagnosis as tantamount to proper treatment of pelvic infections. The

surgical treatment should be individualized to the age of the patient and the existing pathology present at the time of operation. Beware of falling into the category of simply removing pelvic reproductive organs as a cure-all for pelvic inflammatory disease. Treat acute infections medically with

antibiotics, bed rest, and palliative therapy but not surgically. Prior to operation be certain that the temperature and white blood count are normal and that the sedimentation rate is rapidly decreasing. Judicious use of antibiotics, prior to, during, and following surgery is recommended.

## Contraindications for Adrenalectomy in Carcinomatosis\*

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*The treatment of mammary carcinoma which has metastasized has always been a difficult problem. The author discusses his experience with bilateral oophorectomy and adrenalectomy in these cases. The objective is a longer and more comfortable life for the patient. Contraindications to surgery are carefully discussed.*

WHAT are we doing to women with cancer of the breast? We know what we are trying to do for them—we are trying to cure them and, when this is not possible, we are trying to help them survive for as long as possible in comfort. Everything has to be paid for, and when the price of treatment is too high (i.e., the ill effects) such a treatment should not be purchased; it is contraindicated. At times the doctor's surgical approach suggests "The danger was not, I should do ill, but that I should do nothing" (Montaigne). Cancer is malignant, malignancy does kill, but the therapeutic ends do not necessarily justify the surgical means.

What are we to do for women with cancer of the breast? We do not know what is the best form of treatment for every patient so I will only refer very briefly to some aspects

of this part of the problem. The forms of active treatment for cancer of the breast may be stated to be simple mastectomy, radical mastectomy, radiation, endocrine ablation and hormone administration. These may be given singly or in combinations. The pros and cons of mastectomy on the one hand, and of radiation on the other, have been argued for a long time but usually with both contestants lacking firm ground upon which to stand. Statistical analyses are of inestimable value but we have lacked satisfactory means of sorting out the patients and their cancers. It is clear that women with disseminated cancer are less likely to live for a long time than those without dissemination. But there are differences between patients with dissemination. For example, consider two patients of ours—one, a woman of 60, had a mastectomy two years before presenting with widespread metastases; the other, a woman of 74, had a mastectomy carried out ten years before presenting with widespread metastases, but both died within a few weeks of presentation.

\*Presented before the annual meeting of the Utah State Medical Association, Salt Lake City, in September, 1956. The author is Professor of Medicine, University of Sydney. From the Clinical Research Unit, Royal Prince Alfred Hospital, Sydney, which is supported in part by the National Health and Medical Research Council of Australia.



### Microscopic Grading

We are impressed by the published work of Black and his associates in New York. Their method of assessment of each patient in terms of nuclear detail of the cancer and of the histologic reaction of the woman appears to provide a way of determining prognosis, of indicating a basis for assessment of treatment, and of resolving the surgical and radiation conflicts. They published figures showing that if breast cancers were graded on nuclear details of the cells alone, the five-year survival rate was no better after radical than after simple mastectomy for each grading. This grading was independent of extension to axillary nodes.

A second factor is the importance of estrogens. The late menopause, the higher incidence of breast cancer in the single woman, and the value of castration are well recognized. Smith and Smith in 1953 reviewed 794 cases of breast cancer followed for five to twenty years and published data which indicated that survival was related to presence or absence of axillary gland involvement whatever form of mastectomy was carried out and that "prophylactic" castration significantly increased survival rate. However, oophorectomy was only demonstrated to be of significant benefit in patients with metastases to axillary nodes since the benefit in the group without such involvement was slight and could be due to inclusion of patients with unseen metastases. They pointed out that 91 per cent of their patients between the ages of 49 and 69 had ovarian stromal hyperplasia, similar findings to those of Sommers and Teloh. This hyperplasia is interpreted by Jessiman and Moore as indicating gross production of estrogens. Estrogens produce their effect on the normal breast and on breast cancer in the presence of the mammatrophic hormone of the anterior pituitary (Hadfield).

### Endocrine Surgery

Endocrine ablation refers to bilateral oophorectomy, bilateral adrenalectomy or hypophysectomy. Only oophorectomy is carried out to any extent as a prophylactic measure in the absence of metastases and it is doubtful if bilateral adrenalectomy will ever be popular in this sense. Arguments can be put forward for prophylactic hypo-

physectomy. The work of Black and his colleagues may clarify this problem. Adrenalectomy is usually carried out for patients with metastases and these are the patients I wish to discuss.

What can be expected in the way of patient response to endocrine surgery when metastases are present clinically? Pearson and his colleagues at the Memorial Hospital in New York published figures six months ago which were not cheering. The median duration of objective remissions of patients receiving estrogen or androgen treatment was four and one half months, after bilateral oophorectomy six and one half months, and after bilateral adrenalectomy (following oophorectomy) seven months. Andersson in Denmark reported fourteen of twenty patients dead within six months of hypophysectomy. Furthermore, only 50 per cent respond to surgery; those that are hormone dependent.

When does an internist recommend, or advise against, adrenalectomy which can be expected to induce a remission in 45 per cent of patients lasting about six months? While there are several excellent arguments favoring surgical or ionization ablation of the pituitary gland as the best form of endocrine surgery, bilateral adrenalectomy with oophorectomy has been carried out more often. However, total pituitary ablation does appear to be the operation of choice.

Bilateral adrenalectomy for disseminated mammary carcinomatosis is often considered for older women who are not fit for major surgery and it is important to select women on general medical grounds whether it is possible to predict the response of their carcinomas or not. There are many relative or absolute contraindications which have received scant attention in the literature available to us.

### Assessment for Adrenalectomy

During the past twelve months a number of women for whom bilateral adrenalectomy has been considered have been referred to my unit for assessment on general medical grounds. All had histologically proved carcinoma of one or both breasts and all had clinical evidence of metastases in bone and/or soft tissues. The indications for adrenal-

ectomy clearly were present in regard to the presence of carcinomatosis. Bilateral oophorectomy was and is always included in the operation though we have carried out no estrogen assays nor did we establish hormonal dependence.

The meaning of the words "improvement" and "regression" must not be forgotten. A woman is not concerned with some slight change in calcium excretion; she wants a longer life that is comfortable or the same life span more comfortably, particularly if she is in pain. For her the end must surely justify the means. While Hellström and Franksson say patients are ambulant on the second day, most of our old patients were not. The price of a few months' survival after hypophysectomy may be partial blindness. A high price or a low price? A personal decision surely.

We are concerned with the patients' fitness for operation, with their general and metastatic disabilities, and with their attitudes of mind, set in their own particular life situations. If we assume the operation is indicated on account of carcinomatosis our approach can be simplified to a consideration of the following two questions:

1. What chance has the woman of surviving adrenalectomy?
2. If she has a reasonable chance of surviving, should operation be recommended for the particular woman being considered?

### Deciding About Surgery

Personal opinions enter into this sort of decision more than in many others—there are so many factors that can influence our judgment. If there is no chance of surviving from carcinomatosis what are "reasonable" chances of surviving if operation is to be recommended? 9 in 10? 5 in 10? 1 in 10? 1 in 100? What would it be for you, for me?

The conservative surgeon who likes to be able to publish "good figures" will only want to operate on patients with every possible chance of surviving his operation. The really radical young man will operate if there is the slightest chance of survival—say 1 in 100. The point is how to decide the odds and how to present them to the patient. Let me say again that we are not now concerned with the woman's ability to respond to adrenalectomy; it is taken for

granted that the operation is desirable in terms of her carcinomatosis. If it is clear to us that she has no chance of surviving the operation or that she will be completely incapacitated as a direct result of it, this should be explained clearly to a responsible person who may dissuade her from having the operation. The operative mortality is due to the factors set out in Table 1.

**TABLE 1**  
**The Operative Mortality of Adrenalectomy Is Mainly Due to**

---

POOR SELECTION  
POOR PREPARATION  
POOR ANESTHESIA  
POOR SURGERY  
POOR ENDOCRINE REPLACEMENT

---

The major factors influencing survival may be grouped under six headings and these factors provide the basis for the contraindications to operation (Table 2).

**TABLE 2**  
**Major Factors Influencing Survival After Bilateral Adrenalectomy**  
(excluding the response of the carcinoma)

---

AGE AND GENERAL CONDITION  
ATTITUDE OF MIND  
EXERCISE TOLERANCE  
HEPATIC DISEASE  
IMPAIRED RENAL FUNCTION  
POOR MANAGEMENT

---

Our patient assessment is concerned with all of these, but especially age, general condition and attitude of mind. Among the generally contraindicated I include the fragile old lady completely worn out by long continued x-ray therapy and testosterone or estrogens, who cannot possibly face up, physically or psychologically, to bilateral adrenalectomy. We all hope that no one lets these old folk ever think that operation can be carried out. Even if they survive I doubt if we can justify the postoperative course which too often is permanent bed restriction. I never recommend the operation for these people.

### Personal Contraindications

Some patients are obviously quite unsuited to manage their lives after bilateral adrenalectomy and their relatives may be in a similar situation. A certain amount of intelligence is needed to manage permanent adrenal steroid substitution. Other patients

have religious beliefs which preclude operations of this type—for example one woman would in no circumstance have a blood transfusion though her hemoglobin was 8.5 gm when first seen. Another did not have the operation because her husband announced, after assessment had been completed, that his wife should have no "glands" removed and his beliefs were unshakable. This was an unhappy experience for us and for the patient.

Minor complications can prove lethal. A frail physician's wife was submitted to bilateral adrenalectomy and oophorectomy in two stages—she had many bone metastases and, in particular, a lesion of her right clavicle. She walked with a stick on account of pain in her right hip. Unhappily, her right clavicle was fractured through the egg-shell thick region of the metastasis at the first adrenalectomy and she never was able to get up and use her stick again. She completely lost heart, never left her bed, and died a week after the second adrenalectomy. Undoubtedly this minor lesion, a clavicular metastasis, contributed in a major way to her death.

#### Cardiac Evaluation

Cardiovascular assessment needs little emphasis except to stress that recent infarction and congestive cardiac failure complicate management in many ways. Pericarditis, if not due to infarction but to carcinomatosis is an indication for operation rather than a contraindication. Significant cardiovascular disease may be an absolute contraindication and we have been presented with women who had recent histories of cardiac infarction, of cerebral thrombosis, or of peripheral venous thrombosis, all of whom we considered were therefore unsuitable for operation. We pay more attention to the history and to exercise tolerance than to the blood pressure or electrocardiogram.

As an example of the advantage of functional assessment over laboratory or other tests mention will be made of a woman of 53 with widespread skeletal and skin metastases, who had already been treated by x-ray and testosterone. Her blood pressure was regularly 220/120, her heart was enlarged by x-ray, she had a heavy cloud of protein in her urine, her blood urea was

59 mg/100 ml and her BSP retention 13 per cent. Between clinical assessment and first stage adrenalectomy and oophorectomy she developed a pericardial friction rub and electrocardiographic changes consistent with pericarditis, assumed to be due to metastatic carcinoma. Her exercise tolerance was good and her spirit indomitable. She had her bilateral adrenalectomy and oophorectomy without complication and was discharged to her local medical practitioner well maintained. A detailed analysis of cardiovascular disease in relationship to operation for carcinomatosis has been published by La Due and Wroblewski.

#### Respiratory Evaluation

Certain respiratory conditions constitute absolute contraindications. We refer especially to metastases causing grossly impaired ventilation—for example, multiple painful rib fractures, massive pulmonary metastases and respiratory paralysis from cord lesions. Any of these in the older patient forecasts lethal postoperative pulmonary complications. On the other hand, if pulmonary function, as judged by exercise tolerance, is good, the mere presence of metastases may constitute an indication for surgery and the removal of effusions may restore respiratory adequacy. The hazards from emphysema, chronic bronchitis and fibrosis are well recognized and assessed. It is well to remember that the pulmonary changes induced by deep x-ray may be insignificant on a chest film though they can be detected by a simple exercise tolerance test (Whitfield). Exercise tolerance is the important test of respiratory function.

#### Hepatic Evaluation

Evidence of hepatic insufficiency may constitute an absolute contraindication—jaundice and significant ascites, we believe, will usually lead to a fatal operative outcome within days. A woman aged 49 had a bilateral oophorectomy and one adrenal gland removed, as a first stage, for skeletal and hepatic metastases three years after a right radical mastectomy. Pre-operatively she was jaundiced and had a serum bilirubin of 7.3 mg/100 ml, an enlarged liver and ascites. She developed immediate postopera-

tive hepatic failure and died on the fourth postoperative day.

Rapidly accumulating ascites and hypoproteinemia are of evil import if due to hepatic involvement. We pay more attention to the serum bilirubin level than to the serum alkaline phosphatase level and BSP retention, though the latter two may indicate hepatic metastases. A woman aged 42 had a smooth and uninterrupted operative course in spite of a BSP retention (5 mg/Kg 45 minutes) of 25 per cent before operation but she had no ascites and had a normal serum bilirubin level.

While BSP retention is a useful indication of hepatic metastases (Church and Blackburn) it is of greater value when positive than when negative, as was illustrated by an obese woman of 53 who had a few skeletal metastases but an alkaline phosphatase of 14 King Armstrong Units, a normal serum bilirubin, and a BSP retention of only 4 per cent. At laparotomy she was found to have diffuse hepatic metastases and marked peritoneal seeding. No indication of the hepatic status was obtained by physical examination nor by the liver function tests. She died of carcinomatosis within a few weeks.

Although we are bothered by jaundice, hypoalbuminemia, anything but minimal changes in flocculation tests and by significant BSP retention, we cannot regard hepatic metastases as absolute contraindications because we have seen the most striking regression in liver size in a woman of 42 who has been in remission now for ten months. Hepatic metastases seldom respond to adrenalectomy and so their presence is a relative but not an absolute contraindication.

#### Renal Evaluation

Several patients have had evidence of chronic glomerulo-nephritis, chronic pyelonephritis, or nephrosclerosis and prior to operation they have had nitrogen retention and limited capacity for urine concentration. Operation on these patients easily leads to oliguria or anuria from acute renal failure. It is difficult to guarantee that no hypotension *whatever* will occur during and after operation and, though it is seldom more than transient, it may be enough to

induce a lethal oliguria. The presence of renal insufficiency also complicates postoperative management in many ways. We do not like to see a raised blood urea level, a fixed low urine specific gravity, nor evidence of chronic pyelonephritis. A myelophthisic anemia indicates, in most instances we believe, widespread metastases and our experience, like that of West, leads us to regard its presence as of dire prognostic import.

#### Discussion

We do not consider the management of these patients from the point of view of adrenal steroid substitution, either during or after operation, difficult or complicated. Blood transfusion, a good anesthetic, intravenous hydrocortisone, nor-adrenalin, and good nursing make the course of the fit patient smooth. Our worries have been with those women who are really not fit for any surgery, let alone a one or two stage adrenalectomy and oophorectomy that may take from one to three hours. Deaths have not been from adrenal insufficiency but from hepatic failure, renal insufficiency, pulmonary edema, secondary hemorrhage and so on, complications that could have followed any major surgery in these sick and frail women.

The following list constitutes our minimal data to be considered prior to discussions with the patient or her relatives regarding whether operation is recommended or not (Table 3).

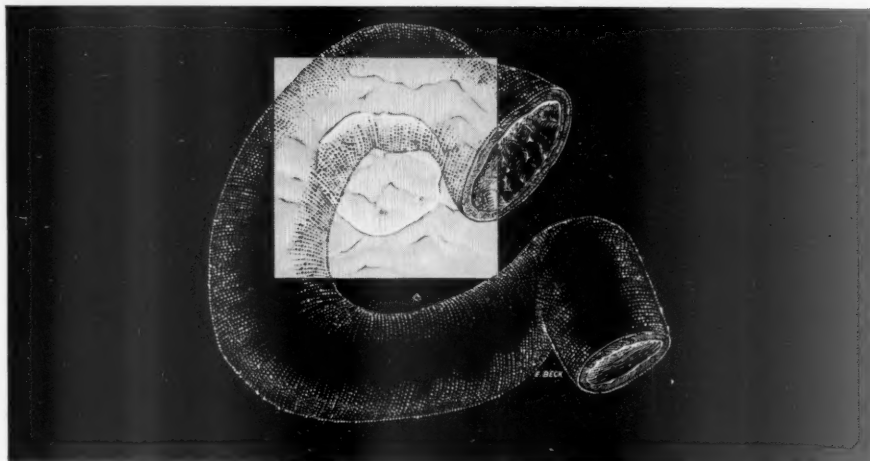
TABLE 3

**Minimal Data for Patient Assessment Prior to Recommending Adrenalectomy for Mammary Carcinomatosis**

Attitude of mind and "setting".  
Degree of senility and general fitness.  
History of carcinoma, of past illness, of intercurrent disease.  
Results of a full physical examination, including exercise tolerance test.  
Results of laboratory tests of cardiac, respiratory, renal, hepatic function.

Before advising bilateral adrenalectomy for metastatic mammary cancer, consider the use of radiation for local metastatic lesions. Remember that operation may yield a remission lasting only six months, and that hypophysectomy is preferable in theory and probably in practice. Beyond all else, consider the woman herself.

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Research in the Service of Medicine.

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SEARLE



## The Washington Scene



A monthly news summary from the nation's capital by the Washington Office of the A.M.A.

If dangerous epidemics of Asian flu break out in the country this fall and winter, the medical profession will have its hands full. But the doctors won't be taken by surprise, nor will they lack specific information on proper treatment.

While the attacks in the U. S. were still sporadic and the death rate low — three fatalities in the first 11,000 reported cases — a number of major, nationwide efforts were under way to combat the disease in the months when influenza rates generally are the highest.

1. Acting in coordination with U. S. Public Health service, the American Medical Association was pressing forward with its campaign to insure that all physicians are informed of how to deal with the disease.

2. In line with recommendations of the AMA committee, a number of state medical societies by mid-August had laid out complete emergency plans, ready to be put in operation if needed.

3. U.S. Public Health Service epidemic intelligence experts were scanning the country for outbreaks that might be Asian influenza, and other PHS officers were investigating acute respiratory diseases. PHS also set up machinery to keep the medical and health professions informed on nationwide developments in the influenza picture.

4. Advising Surgeon General Burney was a special committee, which included representatives from AMA, American Academy of Pediatrics, American Academy of General Practitioners and the Association of State and Territorial Health Officers.

5. Manufacturers of the vaccine, by running their plants on two or three shifts and seven days a week, were hoping to have produced 60,000,000 cc. by February 1.

There was, of course, the possibility that with Congress in session through most of the summer a vast federal program would be set up, with the U.S. purchasing and allocating the vaccine. It was heartening to the medical profession that this possibility was pretty well eliminated in the early stages when the Department of Health, Education, and Welfare announced the following as official policy:

"The Public Health Service, in cooperation with the medical profession, will stimulate and promote a nationwide voluntary program of vaccination against the prevalent strain of influenza. It will not, however, (Continued on page 920)

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919

(Continued from page 916)

ever, request federal funds for the purchase or administration of vaccine — except for its own legal beneficiaries. The State and Territorial health officers and the American Medical Association have jointly assured the Surgeon General that community resources, both public and private, will be mobilized to provide vaccinations for persons who are unable to pay for such protection."

This policy was reaffirmed later by the White House, when the President asked for half a million dollars to finance the additional work for Public Health Service. The White House statement said flatly that it did not plan to have the federal government buy vaccine.

The AMA's Board of Trustees selected as members of the special committee the same physicians who make up the Civil Defense Committee, with Dr. Harold C. Lueth as chairman. In addition to the work of this committee, special articles are being published in the AMA Journal, mass circulation media are being used to bring information on Asian influenza to the lay public and the AMA Council on Drugs is investigating and reporting to physicians on the use of antibiotics in treatment of the disease.

#### NOTES:

To wind up a long investigation of the safety of chemical additives to foods, a House committee called in a panel of scientists for two days of

discussion. In general they concluded: Be careful about any mandatory federal controls.

Another hearing on weight-reducing preparations sold over-the-counter in drug stores heard a parade of witnesses, all of whom had about the same opinion: In themselves, the pills all are virtually useless in inducing loss of weight, but their other effects range from harmless to definitely dangerous.

\* \* \*

Veterans Administration is increasing fees to physicians under the home-town care program, with the new schedules varying by states and areas. During this fiscal year VA will pay out \$8 million under this program.

\* \* \*

A former AMA president, Dr. Elmer Hess, now heads two government advisory committees, the Health Resources Advisory Committee to Office of Defense Mobilization and the Medical Advisory Committee to Selective Service, membership of which is the same. He succeeds Dr. Howard Rusk.

\* \* \*

Secretary Folsom is considering appointing a committee of outsiders to investigate and evaluate progress on medical research by the federal government.

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# ORGANIZATION



## PRELIMINARY PROGRAM

### *Colorado State Medical Society Eighty-Seventh Annual Session*

SEPTEMBER 24, 25, 26, 27, 1957

SHIRLEY-SAVOY HOTEL, DENVER, COLORADO

#### **TUESDAY, SEPTEMBER 24**

10:00—House of Delegates, First Meeting.

12:30—Board of Trustees

5:00—Board of Councilors

Evening—Stag Dinner and Smoker

#### **INDOCTRINATION COURSE PROGRAM**

September 24, 1957

Lincoln Room, Shirley-Savoy Hotel  
Denver

##### **Morning**

Gilbert R. Hall, M.D., Denver, Presiding

8:45—Introduction and Welcome, by George R. Buck, M.D., President, Denver.

8:50-9:50—Organization and Public Relations.

9:50—Summary of Current State Medical Society Policies, by Gatewood C. Milligan, M.D., President-elect, Englewood.

10:05—Cause and Prevention of Malpractice Suits, by C. S. Bluemel, M.D., Chairman, Medicolegal Committee, Englewood.

10:35—Your Grievance Committee, by J. Lawrence Campbell, M.D., Denver, formerly Secretary of Board of Supervisors.

11:05—Health Insurance, by Fredrick H. Good, M.D., President, Colorado Medical Service, Inc., and Mr. John Vance, Executive Director, Colorado Medical Service, Inc., Denver.

11:45—Recess for Luncheon.

##### **Afternoon**

Paul H. Hamilton, M.D., Denver, Presiding  
1:00—Medical Ethics, by McKinnie L. Phelps, M.D., Vice Chairman, AMA Legislative Committee, Denver.

1:30—Intermission to View the Technical Exhibits.

Panel on Buying, Living, and Dying

2:00—Buying—"Pharmacists and Physicians," by Mr. Fred Johnson, Member, State Board of Pharmacy, Cripple Creek.

2:30—Living—"Fortune Building Opportunities Under Free Enterprise," by Mr. Allan S. Richardson, Department of Finance and Banking, University of Denver.

3:00—Dying—"The Wisdom of Wills," by Charles E. Works, Professor of Law, College of Law, University of Denver.

3:30—Question and Answer Period.

4:00—Adjourn.

#### **WEDNESDAY, SEPTEMBER 25**

General Scientific Assembly

##### **Morning**

9:25—Opening Exercises and Call to Order by George R. Buck, M.D., Denver, President.

Presiding Officer,

William A. Liggett, M.D., Denver

9:30—"Neurologic Manifestations of Systemic Disease"—Ben W. Lichtenstein, M.D., Chicago (Guest).

# Meat...

## *and the Need for Adequate Protein in Therapeutic Nutrition*

Liberal protein intake is considered to be of therapeutic value in a wide variety of pathologic conditions.<sup>1</sup> Advances in the understanding of protein metabolism indicate that dietary protein should provide amino acids in proportions paralleling physiologic needs.<sup>2,3</sup> In experimental studies with animals, low protein diets supplying amino acids disproportionate to needs have been shown to effect physiologic harm by depressing growth, by inducing amino acid and B-vitamin deficiencies, and by causing deposition of fat in the liver.<sup>4</sup>

Hence not only the *amount* of protein but also its *quality* (in terms of its amino acid proportions) is important. It has been suggested<sup>1</sup> that for therapeutic purposes about two-thirds of the ingested protein come from foods of animal source, whose protein resembles human body protein in amino acid interrelationships. Depending on the needs of the patient, the therapeutic diet may supply 1.0 or more grams of protein per kilogram of body weight. Adequate caloric intake is required to protect the dietary protein from dissipation for energy purposes.

Meat, with its high content of top-quality protein, holds a prominent place among foods which supply this essential for establishing satisfactory levels of amino acids in physiologic proportions. It also contributes valuable amounts of B vitamins and essential minerals—nutrients which play a basic role in intermediate metabolism.

1. Proudfit, P. T., and Robinson, C. H.: *Nutrition and Diet Therapy*, ed. 11, New York, The Macmillan Company, 1955, pp. 314-320.
2. Harper, A. E.: Amino Acid Imbalance, Toxicities and Antagonisms, *Nutrition Rev.* 14:225 (Aug.) 1956.
3. Amino Acid Requirements of Adult Man, *Nutrition Rev.* 14:232 (Aug.) 1956.
4. Amino Acid Imbalance and Supplementation, Editorial, *J.A.M.A.* 167:884 (June 30) 1956. Council on Foods and Nutrition, American Medical Association: Importance of Amino Acid Balance in Nutrition, *J.A.M.A.* 158:655 (June 25) 1955.

The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

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<sup>1</sup> Sodium heparin U.S.P. aqueous, 2cc or 10 cc multiple dose vial, 20,000 U.S.P. units (200 mgs.) per cc. For intravenous, intramuscular or subcutaneous use.

<sup>2</sup> Clotting times are not suggested from the standpoint of avoiding danger in either the hospitalized or ambulatory patient when Lipo-Hepin dosage schedule and injection technique is used. Clotting times may be taken during initial therapy to insure adequate effect. (Literature available on request).



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REGISTERED  
TRADE MARK

10:00—"Eye Manifestations of Systemic Disease"—Roland H. Myers, M.D., Memphis (Guest).

10:30—Intermission to Visit the Exhibits

11:00—"Cutaneous Manifestations of Systemic Disease"—Robert R. Kierland, M.D., Rochester (Guest).

11:30—"Oral Manifestations of Systemic Disease"—Balint J. Orban, M.D., D.D.S., Colorado Springs (Guest).

### Noon

12:00—Round Table Discussion and Luncheon, with Drs. Lichtenstein, Myers, Kierland, and Orban.

### Afternoon

Presiding Officer,

George A. Unfug, M.D., Pueblo

2:00—Presidential Address—Gatewood C. Milligan, M.D., Englewood.

2:30—"Unusual Manifestations of Renal Disease in Early Infancy"—William S. Davis, M.D., Denver.

2:45—"Varying Patterns in Pulmonary Embolism"—Paul F. Miner, M.D., Denver.

3:00—"The New Surgical Treatment of Paralysis Agitans"—Ralph M. Stuck, M.D., Denver.

3:15—Intermission to Visit the Exhibits.

3:45—"Radiation Therapy with Cobalt 60"—Wendell Stampfli, M.D., Denver.

4:00—"Multiple Arterial Occlusions with Successful Embolectomies"—Edward B. Liddle, Jr., M.D., Colorado Springs.

4:15—"Pumps or Ice; The Current Status of Intracardiac Surgery"—Henry Swan, M.D., Denver.

4:30—Adjourn

4:30—House of Delegates, Second Meeting.

Evening—Open.

### THURSDAY, SEPTEMBER 26

General Scientific Assembly

Presiding Officer,

Robert S. Liggett, M.D., Denver

9:00—"The Treatment of Aortic and Mitral Valve Disease"—John C. Jones, M.D., Los Angeles (Guest).

9:30—"Roentgenology of the Normal Heart"

(Continued on page 930)

ROCKY MOUNTAIN MEDICAL JOURNAL

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(Continued from page 926)

and Great Vessels"—Robert D. Sloan, M.D., Jackson, Miss. (Guest).

**10:00**—"The Drug Treatment of Hypertension"—Robert W. Wilkins, M.D., Boston (Guest).

**10:30**—Intermission to Visit the Exhibits.

**11:00**—Panel Discussion on Cardiovascular Problems; Participating: Drs. Jones, Sloan, and Wilkins.

**11:30**—"The Problem and Treatment of Pruritis"—Robert R. Kierland, M.D., Rochester (Guest).

**Noon**

**12:00**—Luncheon and Round Table Discussion. Robert T. Porter, M.D., Greeley, Presiding Officer. With all morning speakers.

**Afternoon**

Presiding Officer,

Fred A. Humphrey, M.D., Fort Collins

**2:00**—"Rural Health Over the Years"—F. S. Crockett, M.D., West Lafayette, Indiana (Guest).

**2:20**—"Rural Health Throughout the United States"—Aubrey Gates, Chicago (Guest).

**2:40**—"Rural Health from the Distaff Side"—Mrs. Charles Sewell, Chicago (Guest).

V. E. Wohlauer, M.D., Brush, Moderator

**3:00**—Symposium on What Has Been Done in Colorado—Monroe Tyler, M.D., Denver, Henry Thode, M.D., Fort Collins, Mason Light, M.D., Gunnison.

**3:30**—Intermission to Visit the Exhibits.

**4:00**—"Successful Medical Management of a Chronic Typhoid Carrier"—David Barglow, M.D., Trinidad.

**4:15**—Report of A.M.A. Delegates—E. H. Munro, M.D., Grand Junction, and Kenneth C. Sawyer, M.D., Denver.

**4:35**—Adjourn

**4:45**—House of Delegates, Optional Third Meeting.

**Evening**—Banquet, Shirley Savoy Hotel.

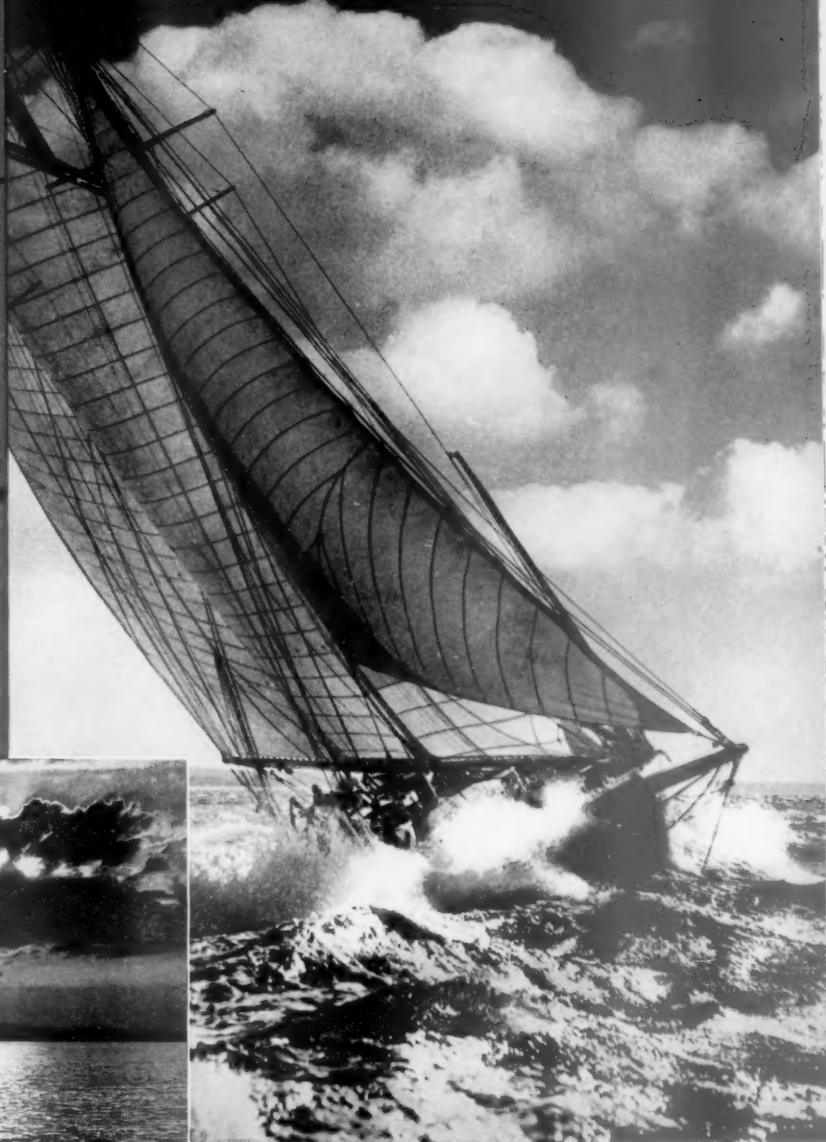
**FRIDAY, SEPTEMBER 27**

**Morning**

**8:00**—House of Delegates, Final Meeting and Election of Officers.

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#### General Scientific Assembly

Presiding Officer,

Ervin A. Hinds, M.D., Denver

**9:00**—Ben W. Lichtenstein, M.D., Chicago (Guest).

**9:30**—"Abdominal Aortography"—Robert D. Sloan, M.D., Jackson, Miss. (Guest).

**10:00**—Intermission to Visit the Exhibits.

"The Doctor's Occupational Hazard: Professional Liability, Past, Present, and Future."

A special program by the Law Department of the American Medical Association and the Medicolegal Committee of the Colorado State Medical Society.

**10:30**—"The Doctor Defendant"—A new motion picture produced by the American Medical Association and the American Bar Association with the assistance of William Merrill & Company.

**11:00**—"Abnormal Proliferation of Claims and Suits"—William J. McAuliffe, Jr., LL.M., Chicago (Guest).

**11:30**—"The Rule of Sympathy"—Edwin J. Holman, LL.B., Chicago (Guest).

#### Noon

**12:00**—Round Table Luncheon—"The Practical Aspects of Professional Liability; A Medicolegal Clinic."—Edwin J. Holman, LL.B., Chicago (Guest), Moderator.

Panelists: William J. McAuliffe, Jr., LL.M., Chicago (Guest), Lawrence M. Wood, LL.B., Denver (Guest), C. Sidney Bluemel, M.D., Denver, Chairman, Medicolegal Committee of the Colorado State Medical Society.

#### Afternoon

Presiding Officer,

George R. Buck, M.D., Denver, President

**2:00**—Report of the Committee on Necrology—Lumir R. Safarik, M.D., Denver.

**2:10**—Summary of Actions of the House of Delegates—Harvey T. Sethman, Executive Secretary, Denver.

**2:20**—Installation of New 1957-58 Officers.

Presiding Officer,

Harry C. Bryan, M.D., Colorado Springs

**2:30**—"Present Relationship Between Ophthalmology and Optometry"—Roland H. Myers, M.D., Memphis (Guest).

**2:45**—"Polyps of the Colon"—R. E. Meatherringham, M.D., Colorado Springs.



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3:00—Intermission to Visit the Exhibits.

3:30—"Esophageal Hiatal Hernia—A Mani-  
festation of Peptic Esophagitis Treated by  
Gastric Surgery"—H. Calvin Fisher, M.D.,  
Denver.

3:45—"Mycotic Infections of the Mouth"—  
Hobart Proctor, D.D.S., Denver (Guest).

4:00—"Diagnosis and Surgical Treatment of  
Hiatus Hernia of the Diaphragm"—John C.  
Jones, M.D., Los Angeles (Guest).

4:30—Adjourn.



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Auxiliary**

#### WEDNESDAY, SEPTEMBER 25

9:00-11:30—Registration, Shirley-Savoy  
Hotel.

9:30—Continental Breakfast. Pre-Conven-  
tion Board Meeting, home of the President,  
5820 East First Avenue.

2:00-4:00—Tea, Denver Medical Auxiliary,  
hostesses. Home of Mrs. Frank T. Joyce,  
144 South Dexter.

Wednesday evening free.

#### THURSDAY, SEPTEMBER 26

9:00-11:30—Registration, Shirley-Savoy  
Hotel.

9:30—General Meeting, Cosmopolitan Hotel.  
Memorial Service. Reports of county presi-  
dents and state chairmen.

12:30 — Luncheon, Cosmopolitan Hotel.  
Strolling accordionist, Miss Pat Tregellas.  
Speaker—to be announced later. Post-Con-  
vention Board Meeting.

6:30—Banquet, Shirley-Savoy Hotel.

6:30-7:30—Cocktail Hour.

7:30—Dinner. Honorary Awards to Fifty-  
Year Men. Entertainment—Denver Univer-  
sity Players.

9:30—Dancing—Mr. Joe Marcus and his  
Orchestra.

(Continued on page 938)

ROCKY MOUNTAIN MEDICAL JOURNAL



# BULLETIN



**FROM: COLORADO HOSPITAL SERVICE**  
**TO: ALL COLORADO DOCTORS**

As you well know from your continuous contact with hospitals in your daily practice, the cost of providing modern hospital care continues to increase. During the past two years hospital costs in Colorado have risen twenty per-cent.

The Blue Cross objective has always been to provide fully paid hospital services, rather than simply dollar-indemnity amounts, at a rate within the economic reach of every Colorado family. To continue to carry out that objective, and at the same time meet the problem of increased hospital costs, Colorado Blue Cross Plan will offer to the public two new Subscription Plans effective November 1, 1957.

Now your patients will be able to select the type of hospital plan which best fits their individual budgets and their individual needs. Group subscribers can continue to have full Comprehensive benefits at an adjusted rate, or they can select Plans which will pay for all hospital services but which will provide \$14.00, \$12.00 or \$9.00 a day, respectively, toward the hospitals' charge for the room occupied. Non-group subscribers can increase their benefits from the present \$7.00 and \$9.00 room-allowance Agreements to the \$12.00 and \$14.00 room allowances provided by the new Plans.

There is no change in Blue Shield rates. Detailed information on the new Plans, new benefits, and new rates will be made available to you soon for the information of your patients who may request it.

THOMAS M. TIERNEY  
COLORADO HOSPITAL SERVICE  
Executive Director

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938

(Continued from page 934)

#### PROGRAM

#### Colorado Chapter American College of Chest Physicians

There will be a meeting of the Colorado Chapter of the American College of Chest Physicians, Saturday, September 28, beginning at 9:30 a.m. in the auditorium of the National Jewish Hospital. There is no registration fee and all physicians are invited to attend. Dr. John C. Jones of Los Angeles will be the guest clinician.

#### Morning

Presiding, Roger Mitchell, M.D.,  
University of Colorado Medical Center  
Denver

**9:30-12:00**—"Unusual Chest Lesions," by Col. Richard Taylor, Fitzsimons Army Hosp.; "The Uses and Abuses of the Bronchoscope," by Dr. Robert K. Brown, Denver; "Observations on the Use of PABA," by Dr. Benjamin Moore, Denver; "Palliation in Cancer of the Lung," by Dr. Marvin Seife, American Medical Center, Denver.

**12:00-12:30**—Luncheon, National Jewish Hospital.

**12:30-2:00**—Tour of the new Research and Rehabilitation Facilities at National Jewish Hospital.

#### Afternoon

Presiding, Robert K. Brown, M.D., Denver

**2:00-4:00**—"Aspects of Fat Metabolism Pertinent to Atherosclerosis," by Dr. Gardner Middlebrook, National Jewish Hospital; "Recent Advances in Angio-Cardiology," by Dr. Gilbert Blount, University of Colorado Medical Center; "Angio-Cardiology in Children," by Dr. Parker Allen, Children's Hospital.

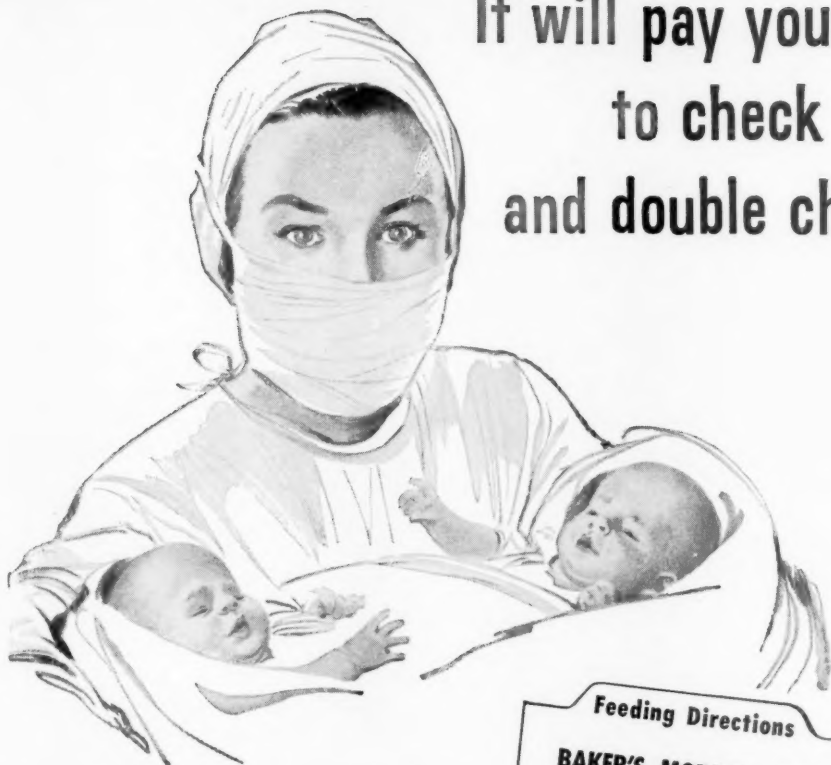
**4:00-4:30**—Business meeting and election of officers.

#### MEDICAL AND SCIENTIFIC DINNER MEETING

The Medical and Scientific Committee of the Rocky Mountain Chapter of the Arthritic and Rheumatic Association will hold a dutch treat dinner Wednesday, September 25, 1957, in the Tabor-Stratton Rooms of the Brown Palace Hotel at 7 p.m. Doctors and their wives are cordially invited to be present. This dinner does not conflict with the official Annual Session program.

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## ABSTRACT OF MINUTES\*

### HOUSE OF DELEGATES NEW MEXICO MEDICAL SOCIETY

75th Annual Session  
May 15, 16 and 17, 1957

FIRST MEETING  
Tuesday, May 14, 1957

President Stuart W. Adler, M.D., Albuquerque, called the House to order at 1:30 p.m. and recognized Lewis M. Overton, M.D., Secretary-Treasurer, for the purpose of making a delegate's report. Dr. Overton reported that forty-two delegates (more than a quorum) answered the roll call.

The President informed the House that there

\*Condensed from the proceedings sound recorded by Ralph Marshall, Executive Secretary. Reports referred to but neither reproduced nor abstracted herein, were distributed to all members of the House of Delegates in mimeographed form in advance of the Council Session. Copies of all such reports are on file in the Executive Office of the Society available for study by any member of the Society.

were two Councilmen absent from this meeting and, according to the Constitution, the House may elect a Councilman to serve these two areas, Districts No. 4 and No. 6, for this Annual Meeting, and requested the wish of the House pertaining to this.

Dr. J. C. Sedgwick of Las Cruces moved that Dr. L. J. Whitaker of Deming act as Councilor for District No. 6, in the absence of Dr. L. L. Daviet. Motion was carried without dissent.

Dr. Allan Haynes of Clovis moved that Dr. J. B. Moss of Clovis act as Councilor for District No. 4, in the absence of Dr. W. D. Dabbs. Motion was carried without dissent.

On motion regularly seconded and carried without dissent, the minutes of the 1956 Meeting of the House were adopted without correction as published in the August, 1956, issue of the Rocky Mountain Medical Journal.

#### Reports of Council

The President informed the House that the Council had met last evening and early this morning and recommends the following rules to govern the conduct of this House:

It is recommended that all resolutions not previously published be introduced in written form and consist only of the resolved portion on which action is to be taken. Each resolution shall apply to one subject or matter for consideration on it. All resolutions introduced shall be referred to the Reference Committee, headed by a Chairman, for consideration as to form and content and with a recommendation as to the desirable action for the House of Delegates

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Riboflavin .....	1.0 mg.
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consideration at the Second Session, tomorrow. It is understood that changes in the content of the resolution will be made only after conference with and approval of the sponsor. If such approval cannot be obtained, substitute resolutions may be prepared and presented by the Reference Committee for the consideration of the House of Delegates.

On motion regularly seconded and carried without dissent, the recommendation of the Council was approved.

The President announced that members of the Reference Committee were as follows: Henry Hodde, M.D., Chairman, Hobbs; L. J. Whitaker, M.D., Deming; Allan Haynes, M.D., Clovis; Frank Parker, M.D., Gallup, and Albert Rosen, M.D., Taos.

The President stated that he would, at this time, take the liberty of appointing a Committee on Necrology and appointed Edward Parnall, M.D., Albuquerque, Chairman; John Boyd, M.D., Albuquerque, and Earl Dellinger, M.D., Las Vegas.

The President asked the pleasure of the House with respect to the mimeographed Council report contained in the Handbook.

It was moved, seconded and carried unanimously that the published Council report be approved.

Secretary-Treasurer Lewis M. Overton, M.D., presented the following supplemental Council report with a vote being taken by the House as the recommendation was read and discussed.

### Council Recommendations

The Council recommends to the House of Delegates that the President of the Society and two Council members be designated as the responsible parties pertaining to the administration of Medicare. On motion duly made and seconded without dissent, the Council's recommendation was approved.

The Council recommends to the House of Delegates that our Legal Counsel be engaged for another year at a salary of \$250.00 per month. On motion duly made, seconded and carried without dissent, this recommendation was approved.

The Council recommends to the House of Delegates that the State Society take over the responsibility of running our Annual Meeting, beginning with the 1958 meeting, and that the site of each Annual Meeting be determined by the House of Delegates in the same manner in which it has always been determined. Motion was duly made and seconded. However, there was a motion made to amend the motion to read that the local County Medical Society should be responsible for the scientific portion of the meeting. The amendment to the primary motion died for lack of a second. Recommendation of the Council was approved.

The Council recommended to the House of Delegates that the Council develop a Manual of Policies and Procedures for future Annual Meetings.



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The recommendation of the Council was approved without dissent.

The Council recommends to the House of Delegates that the State Medical Society office collect all membership dues from members of our State Society and remit County dues to the Secretary-Treasurer of each County Society and the AMA dues to the AMA, as promptly as possible.

It was moved, seconded and carried that the recommendation of the Council be approved.

The Council recommends to the House of Delegates that a request from the Catron-Socorro-Torrance-Valencia County Medical Society in deleting the County of Torrance from the County group be honored and that the doctor residing in Torrance County be declared a Member-at-Large.

The Council's recommendations were carried unanimously.

The Council recommends to the House of Delegates a suggested proposal for redistricting our Councilor districts as requested by the last House of Delegates.

It was moved, seconded and carried, without dissent, that the recommendation of the Council be tabled and that the Council reconsider this question at their meeting tomorrow morning and present their decision to the House.

The Council recommends to the House that the name of the Hospital Liaison Committee be changed to Liaison Committee of Allied Profes-

sional Groups, with duties of the previous Committee to be expanded to cover all groups: nurses, pharmacists, veterinarians, dentists and the Hospital Association.

This recommendation was approved.

The Council recommends to the House of Delegates that the State Society pay the registration fee and cost for formal entertainment at this Convention for our official Fraternal Delegate.

The Council's recommendation was approved.

The Council recommends that a Press Committee for this Convention be formed consisting of the Immediate Past President, the President and the President-Elect.

The House of Delegates adopted the Council's recommendation.

It was duly moved, seconded and carried without dissent that the Chairman of the State Public Relations Committee be invited to sit in on the press Committee meeting.

#### Medical-Legal Committee

The Council recommends to the House of Delegates that the name of the Insurance Committee be changed to Medical-Legal Committee and that the functions of this Committee shall be:

(1) Formulation of a standard insurance reporting form. (2) Supervision of the State Society insurance program, excluding N. M. Physicians' Service. (3) Develop a code of cooperation between the Bar Association and the Medical Society. (4) Continue the cooperation between the State Compensation Commission and the insurance carriers.

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**KENNETH E. APPEL, M.D.**, Chairman of the Department of Psychiatry, University of Pennsylvania School of Medicine.

**ALVAN L. BARACH, M.D.**, Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University.

**CLYDE G. CULBERTSON, M.D.**, Director, Biological Research Division, The Lilly Research Laboratories, Professor and Chairman, Division of Clinical Pathology, Indiana University School of Medicine.

**JAMES G. HUGHES, M.D.**, Professor of Pediatrics, University of Tennessee College of Medicine.

**VICTOR F. MARSHALL, M.D.**, Attending Surgeon-in-charge, Urology, James Buchanan Brady Foundation of the New York Hospital, and Associate Professor of Clinical Surgery (Urology), Cornell University Medical College.

**JOHN H. MOE, M.D.**, Clinical Professor and Director, Division of Orthopedic Surgery, University of Minnesota Medical School.

**CARL A. MOYER, M.D.**, Bixby Professor of Surgery and Head of the Department, Washington University School of Medicine.

**G. O'NEIL PROUD, M.D.**, Professor and Chairman of the Department of Otorhinolaryngology, University of Kansas School of Medicine.

**HYRUM R. REICHMAN, M.D.**, Assistant Clinical Professor of Surgery, University of Utah College of Medicine.

**HERBERT E. SCHMITZ, M.D.**, Professor and Chairman of the Department of Obstetrics and Gynecology, Stritch School of Medicine of Loyola University, Director, Mercy Hospital Institute of Radiation Therapy.

**ERIC E. WOLLAEGER, M.D.**, Associate Professor of Medicine, University of Minnesota Graduate Medical School.

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This recommendation was adopted without dissent.

The Council recommends to the House of Delegates that the Constitution and By-Laws of the State Society be revised and the new President shall appoint a Committee consisting of one member from each Council or district, that will work with our Legal Counsel and that the new revisions be submitted at the next Annual Meeting.

The Council's recommendation was carried without dissent.

Dr. C. P. Bunch, Parliamentarian, informed the President that the Constitution provides for a two-thirds vote of the Delegates present to pass an amendment to the Constitution and, therefore, it would be possible at this session for us to revise the Constitution and By-Laws in less than a year as prescribed by the Constitution.

It was duly moved, seconded and carried unanimously that the Constitution and By-Laws be amended and that they shall be voted on at the next Annual Session.

The Council submits a request from the Dona Ana County Medical Society to the House of Delegates without recommendation that the 1959 Annual Meeting of this Society be held in Las Cruces.

The invitation was accepted and placed on file for suitable handling by the proper Committee.

The Council recommends the approval of the financial report prepared by Peat, Marwick Mitchell & Co., certified public accountants. They reported total receipts, \$35,538.45; total disbursements, \$28,875.52; with a cash balance in the bank of \$26,051.28.

The financial report was approved.

The Secretary-Treasurer reminded the House that the State Society owned a U. S. Savings bond in the amount of \$500.00, which draws 2½ per cent interest. It is the Council's recommendation that, inasmuch as we receive 4 per cent from our investment in the Mutual Building and Loan Association of Santa Fe, that this U. S. Treasury bond in the amount of \$500.00 be cashed and the money deposited in the Mutual Building and Loan Association of Santa Fe.

This recommendation of the Council was approved.

The Council recommends that, inasmuch as we have better than \$26,000.00 in cash on deposit in an Albuquerque bank and only \$10,000.00 is insured, that these monies be disbursed to two or three different banks, in order that all of our money will be insured.

The Council's recommendation was adopted.

The budget for the year 1957-58 was presented by the Secretary-Treasurer with recommendation for approval by the Council.

The budget as amended for 1957-1958 was approved.

The Council recommends to the House of Delegates that the following doctors be elected to emeritus status in the State Society upon request of the respective County Medical Societies: Ethelbert Hubbard, M.D., Dexter; Charles Gandy, M.D., Las Cruces; E. E. Besette, M.D., Belen; James Wiggins, M.D., Estancia, and Dwight Allison, M.D., Las Cruces.

It was duly moved, seconded and carried unanimously that this recommendation of the Council be approved.

The Council's supplemental report as a whole was approved as presented without dissent.

#### Journal Report

Mr. Harvey T. Sethman, Managing Editor of the Rocky Mountain Medical Journal, reported

(Continued on page 958)

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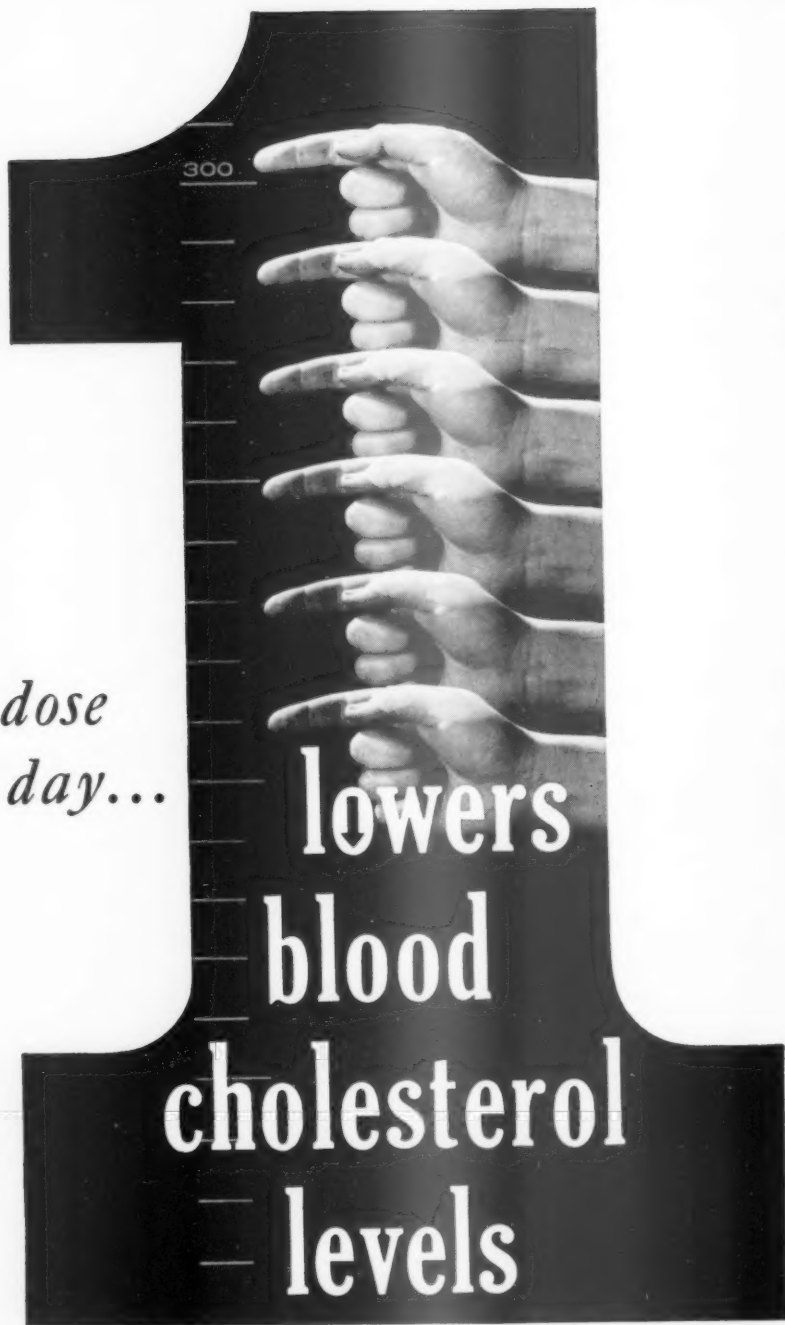
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... while allowing the patient  
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Each tablespoonful of emulsion contains:

Linoleic acid.....	6.8 Gm.
Vitamin B <sub>6</sub> .....	0.6 mg.
Mixed tocopherols (Vitamin E)	11.5 mg.
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to the patient



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Armour...Cholesterol Lowering ...Factor



(Continued from page 955)

to the House of Delegates that there has been a 10 per cent increase in Conference membership during the past year, thus allowing the Journal to receive a more advantageous rate from advertising due to the increase in circulation. Advertising income had increased approximately 50 per cent so far this year. The Journal is in very good condition and enjoying better cooperation from our members in submitting scientific articles for publication in the Journal.

Mr. Sethman's report on the business activities of the Rocky Mountain Medical Journal was accepted and filed in the official minutes.

#### **Published Committee Reports**

(The following Committee reports were duly accepted and filed as published.)

Advisory Committee to Public Health Department, officially the Public Health Committee.

Advisory Committee to the Department of Public Welfare.

Advisory Committee to the Rehabilitation Center. Pursuant to a request contained in this Committee report which concurred with a previous action of the Council, it was duly moved, seconded and carried unanimously, that the House of Delegates donate \$600.00 toward the construction of the Rehabilitation Center in Albuquerque.

Advisory Committee to the University of New Mexico.

Voluntary Health Agencies Committee.

Accident Prevention Committee.

Board of Supervisors.

Civil Defense Committee.

Convention Committee.

Committee for the Physically Handicapped.

The Insurance Committee. The Chairman of the Insurance Committee reported to the House of Delegates that the catastrophic hospitalization group program for our members was in force at this time, having obtained better than 50 per cent of our members to enroll in the program. The group life insurance program has not reached 50 per cent participation by our members; however, it is anticipated that no difficulty will be encountered in arriving at this participation figure.

Maternal and Infant Mortality Committee.

Legislative Committee.

Hospital Liaison Committee.

New Mexico Physicians' Service. The President of the Board of Trustees of the New Mexico Physicians' Service presented a supplemental report to the House stating that hospital costs for our Physicians' Service plan have increased tremendously and informed the House of Delegates the national average for hospitalization has risen 12 per cent; however, in New Mexico, it has risen 34 per cent. He informed the House of Delegates of the new more liberal plan which was put into effect some six months previously by New Mexico physicians and pointed up the advances this policy makes to our subscribers. He informed the House that the hospitalization phase of our contract is the major cause in rate increases and asked the doctors' assistance in keeping the cost of hospitalization down.

Public Relations Committee.

Mental Health Committee.

The President requested one of our very important committees, the Adjudication Committee of the Medicare Program, to make a report and called on the Chairman of this Committee. The Chairman of the Committee informed the House that the Medicare Program as administered through the State Medical Office, with the Executive Secretary acting as Fiscal Administrator,

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to date processed 1,118 claims, having encountered no difficulty whatsoever. All decisions have been reached and accepted on a local level. He informed the House that we were receiving much better cooperation than commercial insurance companies do in the overall filling out and processing of claims. There have been less than 1 per cent of our members expressing dissatisfaction with the decisions reached by the Adjudicating Committee. This report was accepted without dissent.

#### Resolutions

The following resolutions were introduced on behalf of the Bernalillo County Medical Society:

1. A resolution to carry out the intent of the Public Health Committee report as published in the Handbook.

2. Calling for active participation in the Jenkins-Keogh Bill before Congress.

3. Requesting an analysis to determine if a "Department of Institutions" with overall responsibilities of all of our State hospitals would result in more efficient operation of these hospitals.

4. That the present procedure of electing the Nominating Committee be continued.

The delegates from the Chaves County Medical Society introduced a resolution concerning formation of sound legislation concerning adoption procedures.

Curry-Roosevelt County Medical Society delegates introduced a resolution pertaining to the Medicare contract and dealing with usual fees instead of the contracted fee schedule.

Taos County Medical Society delegate introduced the following resolutions:

1. Pertaining to the problem of the Public Health Committee report.

2. That the State Society reconsider entering into an agreement with the VA in regard to hometown care for veterans.

3. The problem of decentralization of tuberculosis care.

The Parliamentarian introduced a resolution amending Chapter X, Section 3 of the By-Laws which would provide for the deliberations of the Society to be guided by parliamentary procedure as set forth in Sturgis Standard Code rather than Roberts Rules of Order.

A member of the Council introduced a resolution dealing with the consultations of physicians with any other than Doctors of Medicine.

Santa Fe County Medical Society delegate introduced a resolution opposing a statewide uniform fee schedule for pre-marital serological examinations.

The next resolution was introduced at the request of the medical director of Los Lunas Mental Hospital asking that the State Society endorse an adequately planned and acceptable expansion program for the Los Lunas Hospital and Training School.

The next resolution was introduced by a delegate—the resolution had originated in the Colorado State Medical Society House of Delegates and is widely heralded as the "Colorado Free Choice of Physician resolution."

The President stated that at this time we would pick up the Constitutional amendments which were introduced at the 1956 session and had lain on the table a year as called for in the Constitution.

He pointed up that the 4th Amendment introduced at the 1956 Session would not be voted on at this time, inasmuch as the action taken

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by this House, this date, necessitates an amendment that will be offered later.

It was duly moved, seconded and carried, without dissent, that the following Constitutional Amendments be approved:

1. Constitutional Amendment, Article 7: "The Council shall consist of one Councilor from each Councilor District."

2. Article 7. Second paragraph: "The majority of voting members of the Council shall constitute a quorum."

2. Article 6. Constitution, Section 1. Delete the words "and six Councilors", and insert, in lieu thereof, "and the Councilors".

Pursuant to the actions of the House with reference to redistricting of the Councilor districts, the following Amendment to Article VI, Section 1 of the Constitution was laid on the table for one year: Deleting "two Councilors, therefore, shall be elected annually" and inserting in lieu thereof: "No more than three-sevenths of the Council are to be elected in any one year."

The Santa Fe County Medical Society delegate introduced the following two resolutions:

1. That there be an option with the County Medical Societies with respect to collection of dues.

2. That the Governor be immediately urged to appoint a Board for State Tuberculosis Sanatoria.

#### Nominating Committee Report

A member of the Nominating Committee reported that there were no changes in the Committee's report from that published in the Handbook and moved that the Nominating Committee's report be accepted as published. Motion was carried without dissent.

The Chair informed the House that the Nominating Committee had recommended that the five Immediate Past Presidents of the State Society should serve as the Nominating Committee. He referred this matter to the Reference Committee.

Bernalillo County Medical Society delegate stated that Bernalillo County was very much opposed to this recommendation and would like to introduce a resolution calling for the procedure of electing the Nominating Committee by the House be continued. This resolution was referred to the Reference Committee.

Dr. Adler informed the House that this completed the business of the First Session of the House and, therefore, declared this House recessed until 8:30, Wednesday morning, May 15.

#### SECOND SESSION

May 15, 1957

The President, Dr. Stuart W. Adler, opened the Second Session of the House of Delegates and introduced Dr. John J. Gorman of El Paso, who was attending our Convention as a Fraternal Delegate from the Texas Medical Association. Dr. Gorman spoke briefly of the program of the Texas Medical Association and expressed his pleasure at being present.

The Secretary-Treasurer reported that forty-one delegates were present for the Second Session (more than a quorum).

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The breast-fed infant receives about 12 gms. of carbohydrate per kilo body weight, while the artificially fed infant receives about 8 to 14 gms. per kilo. In the choice of an added carbohydrate, we must consider adaptability, tolerance, digestibility, absorption, fermentability, and irritation to the intestines.

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1	500	115	52
2	625		
3	675		
4	725	110	50
5	750		
6	800		
7	825	100	45
8	850		
9	875		
10	900	95	43
11	950		
12	1000		
24	1200	90	40



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The President requested the permission of the House of Delegates to change the agenda so that the election of the officers may be moved to the first part of the agenda in order that the tellers may have time to count the ballots. The House concurred in Dr. Adler's request.

The following doctors were appointed by the President to serve as Tellers: Harold Fenner, M.D., Hobbs, Chief Teller; U. S. Marshall, M.D., Roswell; John Abrams, M.D., Albuquerque, and Earl Dellinger, M.D., Las Vegas.

#### Councilor Districts

The President stated that before nominations from the floor were in order, it would be necessary at this time for the House of Delegates to take action on the following recommendations of the Council pertaining to the redistricting of the Councilor districts. The Council recommends to the House of Delegates the following division of Counties for redistricting:

District I: Colfax, Harding, Mora, Union and San Miguel.

District II: Santa Fe, Rio Arriba, Taos, Sandoval and Los Alamos.

District III: Bernalillo and Torrance.

District IV: Quay, Curry, Guadalupe, Roosevelt and DeBaca.

District V: Lincoln, Chaves, Lea and Eddy.

District VI: Otero, Dona Ana, Luna, Grant, Sierra and Hidalgo.

District VII: Catron, McKinley, San Juan, Socorro and Valencia.

The Council's recommendation for the redistricting of Councilor districts was carried unanimously.

The President announced that nominations from the floor were open for all elective offices. The only nomination from the floor was for the position of membership on the Board of Trustees New Mexico Physicians' Service. Dr. Angus McKinnon, Albuquerque, was duly nominated.

The President announced that Dr. Fred Hanold, one of the nominees for position on the Board of Trustees, N.M.P.S., had requested that his name be deleted and therefore, instructed the House to delete Dr. Hanold's name from the ballot.

The President stated that this concludes the nominations with the exception of the Nominat-

ing Committee and, inasmuch as there was a resolution introduced yesterday pertaining to this subject which had been referred to the Reference Committee, he called the Chairman of the Reference Committee to report on this resolution.

The Reference Committee recommended to the House of Delegates that the following resolution be made for approval:

RESOLVED, That the five living Immediate Past Presidents of the Society will serve as the Nominating Committee of the Society, inasmuch as they are more familiar with the membership throughout the State. The Committee recommends that the Senior of these be made Chairman.

It was moved and seconded that the original recommendation of the Nominating Committee calling for the five Immediate Past Presidents to serve as the Nominating Committee be approved. After considerable discussion and vote this motion was defeated.

It was duly moved and seconded that the report of the Reference Committee be accepted. After a vote this motion was defeated.

It was duly moved and seconded that all action on this subject be suspended and that the present rules of electing the Nominating Committee be continued. This action was approved.

It was moved that the matter of electing our Nominating Committee be incorporated in the By-Laws of the Society. This motion was adopted.

The President informed the House that this called for an amendment to the By-Laws and in compliance with the By-Laws this particular amendment could not be voted on until the next Annual Meeting. He referred this to the Constitution and By-Laws Revision Committee for action at our next Annual Meeting.

#### Nominating Committee

The President called for nominations for membership on the Nominating Committee, one from each of our seven Councilor districts. Those nominated were as follows:

District I: Junius Evans, M.D., Las Vegas.

District II: Albert Rosen, M.D., Taos.

District III: Stuart W. Adler, M.D., Albuquerque.

District IV: John Conway, M.D., Clovis, and W. D. Dabbs, M.D., Clovis.

District V: Earl Malone, M.D., Roswell.

District VI: Sidney Baker, M.D., Silver City.

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District VII: Eash Wang, M.D., Grants, and Wendell Peacock, M.D., Farmington, and Vincent Accardi, M.D., Gallup.

The President informed the House that it had been the custom in the past for the President of the State Society to appoint the Chairman of the Nominating Committee and requested the pleasure of the House. It was the consensus of the House that they did not desire the method of electing the Nominating Committee or the appointment of its Chairman interfered with.

The Tellers were instructed to assemble the ballots and count same.

The Chair asked if there was any new business to be brought before the House, at this time.

Dr. William Kridelbaugh, Chairman, AMEF Committee, was recognized and made the following motion:

That the House of Delegates go on record as inviting the Woman's Auxiliary to the State Medical Society, through a Committee appointed by the incoming President, to assist the AMEF Committee in canvassing the State for AMEF funds.

Motion was carried without dissent.

At this time, Dr. Adler expressed his sincere thanks to the House of Delegates and to the membership for the wonderful cooperation he had received during the past year as President of the Society. He stated that he had been able to meet and talk with more than 90 per cent of all of our members and had visited every component Society during the year.

#### Necrology Report

The President called on the Chairman of the Necrology Committee, Dr. Edward Parnall, for a report.

Dr. Parnall spoke briefly and recited a poem which was apropos to the occasion and announced that those who had gone on were Henry Alexander, Santa Fe; Leroy Bowers, Las Cruces; James W. Hannett, Albuquerque; John J. Johnson, Sr., Las Vegas; Howard Newman, Albuquerque; James H. Scott, Santa Fe; William Vicary, Albuquerque; William Woolston, Albuquerque.

The President requested the House to rise in a moment of silent tribute to our deceased friends.

The President stated that during the early part of the year the American Medical Association held a Regional Conference on Veterans' Affairs in Reno, Nevada, and that he had requested Dr. John F. Conway of Clovis to attend this Conference as our representative. He paid tribute to Dr. Conway in being willing to take time from his practice and attend this two day meeting in Reno. He informed the House that he had received a written report concerning the meeting from Dr. Conway and that he was turning this report over to our delegate to the American Medical Association, Dr. H. L. January.

#### Election Results

The Chairman of the Tellers, Harold Fenner, M.D., was recognized for the purpose of announcing the results of the election.

Dr. Fenner reported the following results:

President-Elect, James C. Sedgwick, M.D., Las Cruces; Vice President, Lewis M. Overton, M.D., Albuquerque; Secretary-Treasurer, Omar Legant, M.D., Albuquerque; Councilman from District IV, George Prothro, M.D., Clovis; Councilman from District V, Gerald Slusser, M.D., Artesia; Councilman from District VII, Wendell Peacock, M.D., Farmington.

Members of the Board of Supervisors and their tenure of office: Wm. Hossley, M.D., Deming—1960; Pierre Salmon, M.D., Roswell—1960; Richard Pousma, M.D., Gallup—1960; Albert Jenson, M.D., Hobbs—1959; James McCrory, M.D., Santa Fe—1959; William Natoli, M.D., Los Alamos—1958.

Board of Trustees, New Mexico Physicians' Service for three-year terms: H. M. Mortimer, M.D., Las Vegas; Angus McKinnon, M.D., Albuquerque; James Wiggins, M.D., Albuquerque; Andrew Babey, M.D., Las Cruces; John Abrams, M.D., Albuquerque.

Nominating Committee for one-year terms: Council District No. I—Junius Evans, M.D., Las Vegas; Council District No. II—Albert Rosen, M.D., Taos; Council District No. III—Stuart W. Adler, M.D., Albuquerque; Council District No. IV—John F. Conway, M.D., Clovis; Council District No. V—Earl Malone, M.D., Roswell; Council District No. VI—Sidney Baker, M.D., Silver City; Council District No. VII—Wendell Peacock, M.D., Farmington.

The President stated that yesterday there was a resolution introduced to amend Chapter X—Section III of the By-Laws, and that this amendment has lain on the table for 24 hours, and asked the pleasure of the House with reference to substituting Sturgis Standard Code of Parliamentary

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It was duly moved, seconded and carried unanimously that the amendment to Chapter X, Section III of the By-Laws, be approved.

#### Reference Committee Reports

The Chairman of the Reference Committee, Dr. Henry Hodde of Hobbs, was called on by the Chair for a report of the Reference Committee.

The Chairman of the Reference Committee stated that the following resolution was considered by the Reference Committee and moved that this resolution be approved by this House as follows:

THEREFORE, BE IT RESOLVED, That the House of Delegates of the New Mexico Medical Society strongly protest any move of the Congress of the U. S. to expand Public Law No. 569, to cover non-military personnel employed by the Federal Government and, BE IT FURTHER RESOLVED, That our Delegate to the American Medical Association be instructed to introduce a resolution to the AMA House of Delegates expressing the intent of this resolution.

The motion was carried without dissent.

The next resolution considered by the Reference Committee was as follows:

BE IT RESOLVED, That the next Medicare Contract be drawn up without any formal fee schedule, the physicians submitting their usual fees to the State plan.

The Chairman moved that this resolution be passed as presented. Motion was duly seconded; however, after considerable discussion and vote, the motion was disapproved.

The next resolution which was approved by our Committee is as follows:

THEREFORE BE IT RESOLVED, That the New Mexico Medical Society request an analysis, either from existing State facilities or from some disinterested facility, such as a philanthropic foundation, to determine if a Department of Institutions with overall responsibilities of all of our State Hospitals would result in more efficient operation of these Hospitals and, BE IT FURTHER RESOLVED, This analysis be available before the next regularly scheduled session of the State Legislature for any legislative action which may be recommended by this analysis.

This motion was carried without dissent.

The Reference Committee recommends the following resolution to the House:

RESOLVED, That the House of Delegates of the New Mexico Medical Society endorse an adequately planned and generally acceptable program for the urgently needed expansion of the services of Los Lunas Hospital and Training School, including fa-

cilities to make such expansion possible; BE IT FURTHER RESOLVED, That we give our support as an organization to all worthy efforts to accomplish this end, including support of appropriate action in the next Legislature.

This resolution was approved without dissent.

The Reference Committee offered a substitute resolution for the one submitted by Taos County Medical Society concerning the decentralization of tuberculosis care. The resolution the Chairman of the Committee submitted is as follows:

RESOLVED, That the New Mexico Medical Society instruct its representatives to consider the problem of decentralization of tuberculosis care.

This resolution was adopted.

The Reference Committee approves of the following resolution for the House's consideration:

RESOLVED, That the New Mexico Medical Society consider entering into an agreement with the Veterans Administration in regard to Hometown Care of Veterans.

Motion was duly seconded and carried without dissent.

#### Adoption Procedures

The Chairman of the Reference Committee reported that with this next resolution the Committee could not arrive at any unanimity in a decision and, therefore, the resolved portion of this resolution has been redrafted as follows:

BE IT RESOLVED, (1) that the Legislative Committee of the New Mexico Medical Society now consider the formulation of sound legislation concerning the procedure for adoption in this State to be presented at the next session of the Legislature. (2) that the following issues be seriously considered: a) time of adoption; b) race; c) religion; d) age of parents; e) eligibility of service personnel and other qualified families who may be temporarily residents; f) matter of Medical Doctors having a voice in the placing of certain children in certain homes; g) matter of Department of Public Welfare making a more determined effort to place foster children in private homes.

This resolution was adopted.

The Chairman of the Reference Committee stated that the following resolution was being submitted to the House of Delegates without recommendation:

RESOLVED, That any physician, a member of the State Medical Society, who associates in any manner in the handling or treatment of persons practicing with any other than Doctors of Medicine, excepting in cases of genuine emergency, will be held guilty of unethical conduct and will, therefore, be subject to discipline by the Society.

After considerable discussion this resolution was tabled.

The Reference Committee heartily recommended the following resolution:

NOW, THEREFORE, BE IT RESOLVED, That the New Mexico Medical Society endorse and actively

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support passage of U. S. House of Representatives' Resolutions 9 and 10, and promptly notify New Mexico's four Congressmen of such endorsement and, **BE IT FURTHER RESOLVED**, That the New Mexico families and friends, who are self-employed, to write similarly or contact otherwise Congressmen in behalf of these bills.

It was duly moved, seconded and carried without dissent that this resolution be approved.

The Reference Committee considered two similar resolutions pertaining to the same subject and offers an amendment to these two resolutions as follows:

**BE IT RESOLVED**, That the Public Health Committee of the New Mexico Medical Society, using the survey as the basis of information, actively establish liaison with the Department of Public Health and make recommendations to the Council regarding the limits and activities of the Department of Public Health.

This resolution was approved without dissent.

The Reference Committee Chairman stated that the Committee did not approve of the following resolution and, therefore, requests that the House of Delegates table it:

**RESOLVED**, That the County Societies not desiring to have dues collected by the State Society be empowered to collect locally in the same manner as heretofore.

This resolution was tabled.

The Reference Committee favorably recommended the following resolution:

**RESOLVED**, That this House go on record as opposing any statewide uniform fee schedule for premarital serological examination.

Motion was duly seconded and carried without dissent.

The Reference Committee recommended that the following resolution be not approved:

**RESOLVED**, That this House instruct the President and the Council to urge the Governor to immediately appoint members of the new Board for the State Tuberculosis Sanatoria, in order to efficiently transfer these institutions from the Department of Public Welfare and to provide every opportunity and facility for the wise and continuous care of the patients in these institutions.

It was duly seconded and carried that this resolution be disapproved.

#### Free Choice of Physician

The Reference Committee reported that the commonly called "Colorado Society Free Choice of Physician Resolution," is submitted to the House without recommendation:

**BE IT RESOLVED**, That this House of Delegates again reiterates the adherence of the American Medical Association to the principle of free choice of physician as currently defined in the Principles of Medical Ethics as being essential to the welfare of the patient and, **BE IT FURTHER RESOLVED**, That the Judicial Council is requested to caution

all members of the American Medical Association to volunteer participation in systems of medical care which deny patients the right of free choice of physician as so defined, other than as may be required by the mandates of law, constitutes a violation of the principle of medical ethics.

This resolution was tabled.

The President thanked Dr. Hodde and the members of the Reference Committee for an outstanding job well done.

The President stated that there was one resolution contained in the Handbook for the Bernalillo County Medical Society concerning the County-Indian Hospital in Albuquerque which he did not refer to the Reference Committee feeling that this resolution was more for general information to the delegates rather than action. He requested the pleasure of the House.

After some discussion the resolution was amended as follows:

**RESOLVED**, That each member of the House of Delegates will relay this information to his respective County Society, to the welfare workers within your County, who may feel that they should or can authorize admission of patients to this Hospital without special referral from the physicians (patient's physician), and to ambulance services and police departments within each City and County who may make it a practice to come directly to the Bernalillo County-Indian Hospital rather than to the previous institutions within this State.

This resolution was passed unanimously.

The President informed the House that this completes our routine business and asked if there was any new business to come up before the House.

Dr. Edward Parnall stated that he would like for the House of Delegates to explore the idea of the free choice of physicians by each workman covered under the Workmen's Compensation Law and was agreeable to the recommendation by the President that this matter be turned over to the Legislative Committee.

Dr. Wilkinson stated that he would like something done with reference to patients referred to Doctors of Medicine from other than Doctors of Medicine. After considerable discussion it was duly moved, seconded and carried without dissent that this question be referred to the appropriate committee of the State Society to study the matter and to come up with possible recommendations for consideration.

#### Medicare Contract Negotiations

The Negotiation Committee for the State Medical Society in negotiating the Medicare contract was commended and the following motion was carried without dissent:

That the Negotiating Committee, which will be



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business  
of the many  
doctors  
we serve*

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empowered to negotiate a new contract with Medicare, be allowed full discretion in arranging new schedules and other phases of the contract.

Dr. Sedgwick stated that Dr. Adler had been one of the most conscientious and hard working Presidents and moved that the House of Delegates offer a standing vote of thanks for a job well done to Dr. Adler. The House concurred by rising and applauding.

The President offered the following resolution to the House for their consideration, said resolution not having been referred to the Reference Committee:

BE IT RESOLVED, That the House of Delegates of the New Mexico Medical Society at the Seventy-Fifth Annual Meeting of the New Mexico Medical Society extend the thanks of the Society to all those responsible for the success of this meeting and particularly to the Santa Fe County Medical Society, to its doctors and committee members for their thorough and thoughtful handling of the arrangements of the meeting and, BE IT FURTHER RESOLVED, That our thanks be extended to the officials of the City of Santa Fe and to the Museum of New Mexico for the use of its fine auditorium and assistance with the exhibits from the hotels in Santa Fe and to the Auxiliary in Santa Fe for their excellent cooperation.

It was duly moved, seconded and carried without dissent that the above resolution be approved.

The President appointed Dr. Earl Malone, Past President of the Society, and Dr. H. L. January, delegate to the AMA, to escort the new President to the rostrum.

Dr. Adler introduced the new President, Samuel R. Ziegler, M.D., of Espanola, to the House of Delegates and extended his hearty congratulations to Dr. Ziegler on receiving this high honor and assured him of his support throughout his administration.

Dr. Ziegler spoke briefly, thanking those who had elected him and requesting the support of all members of the Society in the year ahead. He expressed his concern of the tremendous job ahead of him and the precedent that has been established by our Past Presidents and completed his remarks by quoting some words of Emerson when he stated, "We may be of different opinions at different hours but it may always be said that we are together at heart in search for the truth."

It was duly moved, seconded and carried unanimously that the 75th Annual Meeting of the House of Delegates of the New Mexico Medical Society be adjourned at 1:30 p.m., May 15, 1957.

LEWIS M. OVERTON, M.D.,

(Continued from page 878)

of local origin. The physician may find himself puzzled that there is so little evidence of left heart failure when superficially it seems that this should be the explanation. He may be misled into digitalization and administration of diuretics and be surprised in a day or so to observe that there is no diuresis and that dyspnea is decreasing very slowly." Loc. cit., page 446.

"Hemoptysis (in pulmonary embolus) occurs in less than 40 per cent of cases." Loc. cit., page 447.

"The phenomenon of chest pain should receive a little further attention. It is of two types: one is the pleuritic pain due to the reaction of the pleura because of pulmonary parenchymal involvement and usually manifests itself twenty-four to forty-eight hours after pulmonary embolism has occurred, while the other, a severer, deeper pain, develops early after pulmonary embolism occurs, is often indistinguishable from that of acute myocardial infarction, and is the pain that leads to most confusion and delay in definite diagnosis." Loc. cit., page 447.

"The peripheral wedge-shaped shadow (in pulmonary embolism) usually mentioned in the textbooks is an infrequent finding. In the usual postero-anterior view, the wedge shape will be apparent only if the lesion is in the lateral position; if it presents anteriorly or posteriorly, one will be looking down upon the cone or wedge lesion and it will appear more rounded and often suggestive of pneumonitis." Loc. cit., page 447.

"Even in the absence of pulmonary infarction, one may find evidence of ischemia with segmental increased radiability of the lung and absence of vascular markings in that region, abrupt termination of major arterial branches at the site of the embolus and dilation of the main pulmonary artery or arteries proximal to the embolus." Loc. cit., page 447.

"The electrocardiogram also is seldom diagnostic in itself but is a valuable tool in about half of the cases, provided one is already considering the diagnosis of pulmonary embolism. Serial electrocardiograms over the first two days are especially helpful when minor transient changes occur which might otherwise be overlooked or discounted unless a control electrocardiogram happens to be available." Loc. cit., page 447.

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## The Book Corner



### Book Reviews

**Modern Therapy in Neurology:** Edited by Francis M. Forester, M.D. St. Louis, C. V. Mosby Company, 1957. 792 p. Price: \$12.00.

This book of 792 pages reveals that much effort is being directed in the treatment of neurologic lesions. It also offers testimony that the neurologic specialty, long recognized for its diagnostic acumen, has a significant contribution to offer in the treatment of a large segment of disease. And not unimportant is the exposition that there are still many diseases of the nervous system for which there is no therapy. In many of these diseases treatment will be forthcoming. In the last two decades malignant lesions such as dementia paralytica, tabes dorsalis, meningitis of fungus, tuberculous, coccal and bacillary origin, poliomyelitis, and others have been successfully attacked.

In this book there are eighteen chapters written by twenty-two authors. Subjects covered include the following: infection, vascular disease, demyelination, headache, myasthenia gravis, muscle disease, epilepsy, disorders of the basal ganglia, toxic metabolic disorders, lesions of the cranial and peripheral nerves, degenerative and developmental diseases, neoplasm, trauma, rehabilitation, and ataraxic drugs.

The book has thirty-seven pages of index which facilitate cross reference. The bibliography is excellent for further review of the literature in reference to treatment of neurologic disorders.

"Modern Therapy in Neurology" is recommended to all those engaged indirectly or directly in the treatment of neurologic disorders.

G. W. HOLT, M.D.

**Dorland's Illustrated Medical Dictionary:** 23d edition. Phila., W. B. Saunders Co., 1957. 1598 p. Price: \$12.50.

The 1957 edition of this well-known dictionary has been revised and certain changes will be immediately apparent to the reader. The page size has been increased to accommodate the 4,000 or more new terms and definitions without otherwise enlarging the size of the publication. The list of contributors is impressive. The anatomical tables are completely new, and are generally excellent. These tables are useful not only to refresh one's memory, but the anatomical sketches are very helpful in explanations to patients. With the growing vocabulary of the medical sciences, the new edition has deleted detailed descriptions of such technics as staining, and certain laboratory procedures, and has omitted the addition of descriptive sketches of

well-known names in medicine short of Nobel Prize stature. In short, the publishers of this dictionary have brought out another edition of excellence in what must be one of the most difficult fields of medical literature.

M. M. ALEXANDER, M.D.

**Proceedings of the Third National Cancer Conference, Detroit, Michigan, June 4-6, 1956.** Sponsored by American Cancer Society, Inc., and National Cancer Institute, U. S. Public Health Service. Phila., J. B. Lippincott Company, 1957. 961 p. Price: \$9.00.

This large and well-organized volume consists of over 120 papers covering almost every phase of the large and ever-expanding field of cancer. Each and every doctor who is interested in cancer, has, in this volume in detail, any phase of the subject in which he might be interested; for example, epidemiology as a tool in cancer research, radiation neoplasia, the virus etiology of cancer, factors influencing the curability of cancer. To the reviewer, one of the highlights of this book is a group of papers on the treatment of breast carcinoma, the rationale and indications for oophorectomy, adrenalectomy, hypophysectomy, radiation, etc. There are also excellent discussions of carcinoma of the prostate, cervix, ovaries, etc.

This book, as has been previously mentioned, can be recommended without reservation to anyone interested in giving better care to the cancer patient.

J. R. PLANK, M.D.

**Expectant Motherhood:** By Nicholson J. Eastman, M.D., Professor of Obstetrics in Johns Hopkins University, and Obstetrician-in-Chief to the Johns Hopkins Hospital. Third edition, revised. Boston, Little, Brown and Co., 1957. 198 p. Price: \$1.75.

For the expectant parents, this little book provides concise and easily understood knowledge about the birth process. It begins by elaborating on the signs and symptoms of pregnancy and follows through the prenatal care, the birth and postpartum care, and the care of the newborn baby, and answers most questions that concern parents at this time.

For the doctor, this edition should prove even more helpful in gaining the confidence of the obstetric patient and answering her many and varied questions, than the previous editions, since the information contained herein is more complete. For the expectant mother this book is highly recommended.

VIRGINIA SCHERBEL ARMSTRONG, M.D.

**A Visit to the Hospital:** Written by Francine Chase; pictures by James Bama. Prepared under the supervision of Lester L. Coleman, M.D., with an Introduction by Flanders Dunbar, M.D. N. Y., Grosset & Dunlap, 1957. 68 p. Price: \$1.50.

This is a good book of its kind, but one wonders concerning its necessity. However, as long as the modern mode of child care includes ultra-protection against so-called psychic trauma, this book has value.

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## The Colorado State Medical Society Annual Session; September 24-27, Denver

### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** George B. Buck, Denver.

**President-Elect:** Gatewood C. Milligan, Englewood.

**Vice President:** C. Walter Metz, Denver.

**Constitutional Secretary (three years):** James M. Perkins, Denver, 1957.

**Treasurer (three years):** William C. Service, Colorado Springs, 1959.

**Additional Trustees (three years):** Lawrence D. Buchanan, Wray, 1957;

Ray G. Witham, Craig, (to fill vacancy) 1957; Terry J. Gromer, Denver,

1958; Bernard T. Daniels, Denver, 1959.

(The above nine officers compose the Board of Trustees of which Dr. Buck is Chairman and Dr. Metz is Vice Chairman for the 1956-1957 year.)

**Board of Councilors (three years):** District No. 1: Osgoode S. Philpott, Denver, 1957; District No. 2: Roger G. Howlett, Golden, 1959; District No. 3: Harry C. Bryan, Colorado Springs, 1958; District No. 4: Paul R. Hildebrand, Brush, 1957; District No. 5: John D. Gillaspie, Boulder, 1957; Vice Chairman; District No. 6: Harvey M. Tupper, Grand Junction, 1958; District No. 7: Charles L. Mason, Durango, 1958; District No. 8: Herman W. Roth, Chairman, Monte Vista, 1959; District No. 9: Scott A. Gale, Pueblo, 1959.

**Grievance Committee (formerly the Board of Supervisors) (two years):** Duane F. Harshorn, Chairman, Ft. Collins, 1957; Kenneth H. Beebe, Vice Chairman, Sterling, 1957; Freeman H. Longwell, Secretary, Denver, 1958; Lawrence W. Holden, Boulder, 1957; Robert C. Lewis, Jr., Glenwood Springs, 1957; James S. Orr, Fruita, 1957; Gordon H. Vandiver, La Junta, 1958; Robert H. Smith, Colorado Springs, 1958; George G. Balderston, Montrose, 1958; Ligon Price, Mt. Harris, 1958; Walter M. Boyd, Greeley, 1958; William N. Baker, Pueblo, 1957.

**Delegates to American Medical Association (two calendar years):** E. H. Munro, Grand Junction, 1957; (Alternate, Harlan E. McClure, Lamar, 1957); Kenneth C. Sawyer, Denver, 1958; (Alternate, Irvin E. Hendryson, Denver, 1958).

**Speaker, House of Delegates:** Carl W. Swartz, Pueblo; **Vice Speaker:** Frank B. McGone, Denver.

**Foundation Advocate:** Walter W. King, Denver.

**Executive Office Staff:** Mr. Harvey T. Suthman, Executive Secretary; Mr. John W. Pompelli, Assistant Executive Secretary; Mrs. Geraldine A. Blackburn, Executive Assistant; 835 Republic Building, Denver 2, Colorado; Telephone AComa 2-0547.

**General Counsel:** Mr. J. Peter Nordlund, Attorney-at-Law, Denver.

## The Wyoming State Medical Society

### OFFICERS—1957-1958

**President:** H. B. Anderson, Casper.

**President-Elect:** L. Harmon Wilmoth, Lander.

**Vice President:** Benjamin Gitzel, Thermopolis.

**Secretary:** Francis A. Barrett, Cheyenne.

**Treasurer:** C. D. Anton, Sheridan.

**Delegate to A.M.A.:** A. T. Sudman, Green River.

**Alternate Delegate, A.M.A.:** B. J. Sullivan, Laramie.

**Executive Secretary:** Mr. Arthur B. Abbey, Cheyenne.

**Councillors:** Albany County, B. J. Sullivan, M.D., Laramie; Carbon County, Guy Halseth, M.D., Rawlins; Converse County, Roman Zwalsh, M.D., Glenrock; Fremont County, Bernard Stack, M.D., Riverton; Goshute County, Joseph Volk, M.D., Torrington; Laramie County, S. J. Giovala, M.D., Cheyenne; Natrona County, Frederick Hagler, M.D., Casper; Sheridan County, Jay Blumentstock, M.D., Sheridan; Sweetwater County, J. G. Wanner, M.D., Rock Springs; Teton County, Robert Knapp, M.D., Pinedale; Uinta County, Joseph Whalen, M.D., Evanston; Northeastern Wyoming, Virgil L. Thorpe, M.D., Newcastle; Northwestern Wyoming, John H. Froyd, M.D., Worland.

## Montana Medical Association

### Annual Meeting; September 19-21, Missoula

#### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated, the term is for one year only and expires at the 1957 Annual Session.

**President:** Edward S. Murphy, Missoula.

**President-Elect:** Bernard A. Layne, Great Falls.

**Vice President:** Herbert T. Caraway, Billings.

**Secretary-Treasurer:** Theodore R. Vye, Billings.

**Assistant Secretary-Treasurer:** Park W. Willis, Jr., Hamilton.

**Executive Committee:** Edward S. Murphy, Missoula, Chairman; John A. Layne, Great Falls; Herbert T. Caraway, Billings; Theodore R. Vye, Billings; Park W. Willis, Jr., Hamilton; George W. Setzer, Malta; John J. Maise, Anaconda.

**Executive Secretary:** Mr. L. R. Hegland, P. O. Box 1492, Office Telephone 9-2585, Billings.

**Delegate to American Medical Association:** Raymond F. Peterson, Butte; alternate, Paul J. Gans, Lewistown.

## The Utah State Medical Association

### OFFICERS—1956-1957

Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1957 Annual Session.

**President:** James Z. Davis, M.D., Salt Lake.

**President-Elect:** Reed W. Farnsworth, M.D., Cedar City.

**Past President:** R. O. Porter, M.D., Logan.

**Honorary President:** C. N. Ray, M.D., Salt Lake.

**Secretary:** J. Poulsen Hunter, M.D., Salt Lake.

**Executive Secretary:** Mr. Harold Bowman, Salt Lake.

**Treasurer:** Alan P. Macfarlane, M.D., Salt Lake.

**Councilor, Box Elder Medical Society:** J. H. Raasmussen, M.D., Brigham City.

**Councilor, Cache Valley Medical Society:** C. C. Randall, M.D., Logan.

**Councilor, Carbon County Medical Society:** L. H. Merrill, M.D., Hiawatha.

**Councilor, Central Utah Medical Society:**

**Councilor, Salt Lake County Medical Society:** James F. Orme, M.D., Salt Lake.

**Councilor, Southern Utah Medical Society:**

**Councilor, Uintah Basin Medical Society:** T. R. Sager, M.D., Vernal.

**Councilor, Utah County Medical Society:**

**Councilor, Weber County Medical Society:** I. B. McQuarrie, Ogden.

**Delegate to the A.M.A., 1955-57:** George M. Flister, M.D., Ogden; Alternate: Elliot Snow, M.D., Salt Lake City.

**Editor of the Utah Section of the Rocky Mountain Medical Journal:** R. F. Middleton, M.D., Salt Lake.

## New Mexico Medical Society

### OFFICERS—1957-1958

Terms of Officers expire at the Annual Session in the year indicated. Where no year or term is indicated, the term is for one year only and expires at the 1958 Annual Session.

**President:** Samuel R. Ziegler, Espanola.

**President-Elect:** James C. Sedgwick, Las Cruces.

**Vice President:** Lewis M. Overton, Albuquerque.

**Secretary-Treasurer:** Omar Legant, Albuquerque.

**Executive Secretary:** Mr. Ralph B. Marshall, 302 First National Bank Building, Albuquerque; telephone 2-2102.

**Immediate Past President:** Stuart W. Adler, Albuquerque.

**Councillors (three years):** W. O. Connor, Jr., Albuquerque, 1958; L. L. Daviet, Las Cruces, 1958; Aaron Margulis, Santa Fe, 1959; Julius A. Evans, Las Vegas, 1959; Gerald Slusser, Artesia, 1960; George Prothro, Clovis, 1960; Wendell Peacock Farmington, 1960.

**Delegate to American Medical Association (two years):** H. L. January, Albuquerque, 1958; alternate, Earl L. Malone, Roswell, 1958.

**Grievance Committee:** Louis Lerin, Belen, Chairman, 1958; Jack Dillahun, Albuquerque, Secretary-Treasurer, 1958; A. D. Maddox, Las Cruces, 1958; O. A. Slusser, Artesia, 1958; William Hossley, Deming, 1960; Pierre Salmon, Roswell, 1960; Alfred Jensen, Hobbs, 1959; James McCrory, Santa Fe, 1959; William Natoli, Los Alamos, 1958.

**New Mexico Physicians Service:** Wendell Peacock, Farmington, President, 1958; H. M. Mortimer, Las Vegas, 1960; R. P. Reudette, Raton, 1958; R. V. Seligman, Albuquerque, 1958; Omar Legant, Albuquerque, 1958; Allen Haynes, Clovis, 1959; W. L. Minton, Lovington, 1959; J. P. Turner, Carrizosa, 1959; U. S. Marshall, Roswell, 1959; J. W. Hillman, Carlsbad, 1959; Angus McKinnon, Albuquerque, 1960; James Wiggins, Albuquerque, 1960; Andrew Babey, Las Cruces, 1960; John Abrams, Albuquerque, 1960; Executive Director, Mr. L. J. LeGrave, 212 Insurance Building, Albuquerque, Phone 3-3188.

## Colorado Hospital Association

### OFFICERS, 1956-1957

**President:** Robert A. Pontow, Colorado General Hospital, Denver.

**President-Elect:** Roy Prangely, St. Luke's Hospital, Denver.

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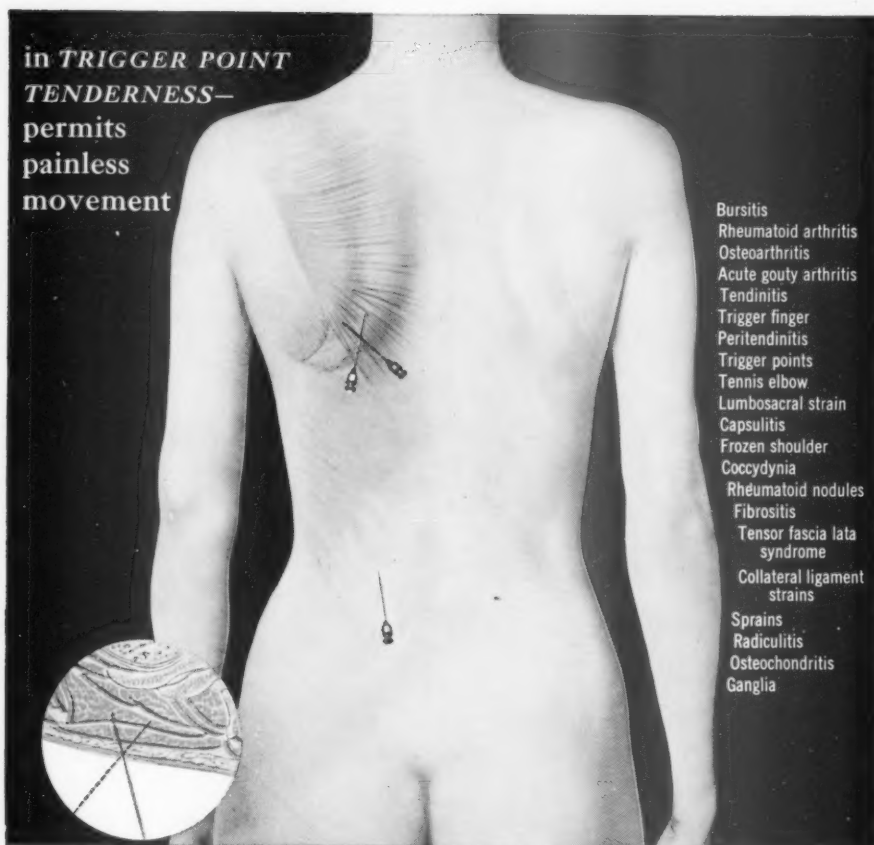
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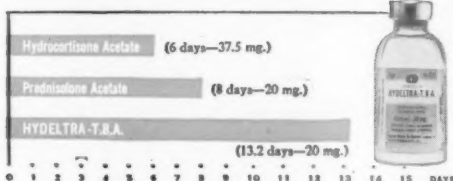
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Duration of relief  
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OPINIONS among authors and readers vary concerning reference lists appended to scientific articles. The scientific editors are practically unanimous in agreeing that they

### *Reference Lists and Bibliographies*

mean little or nothing to average readers; rarely are the lists desired by teachers and specialists for filing purposes. Some authors are sensitive about publication of references—especially when they contain their own names from one to many times! The lists imply that the author has studied each item and has digested and recorded the “pearls” for benefit of his readers. However, many authors will admit that a conscientious secretary has plucked them from the Cumulative Quarterly Index or elsewhere. Incidentally, the term “references” properly means articles actually used in composition of a manuscript. “Bibliography” supposedly means a complete or exhaustive list of published monographs or books upon the subject. In either case, more than a few items upon a list comprise a space-consuming expensive exploitation of the printing trade—at least in a Journal like this one which serves a large territory and mostly general practitioners who want the mental pabulum boiled down.

As a matter of policy, your Editors and Editorial Board have wanted to be in line with other representative state and regional medical journals. We have wished to be fair and regret the occasional objection from authors who resent their reference lists being trimmed or deleted. The question was passed on to Dr. Austin Smith, Editor of the Journal of the American Medical Association. Dr. Smith composed a thoughtful letter which has helped us formulate a policy which is sensible and in keeping with other medical journals.

“Differences of opinion stem from different interests,” said Dr. Smith. “The average practitioner wanting facts and very often

few references to the literature and the teacher or research man wanting references perhaps even more than the article which they follow.” The specialty journals are read largely by teachers and research-minded individuals. This is not true, of course, in the case of the widely and generally circulated state and regional journals. The J.A.M.A. some time ago began omitting long reference lists and bibliographies, carrying footnotes to state that such would be available in reprints when desired. Practically the only protest came from men in teaching centers who often stated they wanted bibliographies for reprint files and teaching purposes to save their own searching of the literature. Later, after careful considerate study of medical literature in the United States and abroad, the Journal limited the number of references to 12. Few letters of protest were provoked and the editors concluded that few authors need more than a handful of references. Still later, because of complications incidental to footnotes and addition of long lists to reprints of articles, the Journal extended the number of acceptable references to 18 but no longer permitted additional references in reprints.

Your Editorial Board—composed of the Scientific Editor, the Assistant Scientific Editor, and the Editors from Montana, New Mexico, Utah, and Wyoming, and Managing Editor and Assistant Managing Editor—met recently in Denver. Upon the agenda was this question of reference lists and bibliographies and formulation of a permanent, fair, and defensible policy. The Board’s decision was that henceforth short reference lists will be published, not to exceed 12 items. We believe that this ruling is consistent with national and international policy and with the Journal of our parent organization. We expect to find its wisdom revealed as time passes, that our Journal and its publication policy will have gained considerable and lost little or nothing!

WITHIN our recent memory — and obviously, too, the memories of newspaper and magazine editors of the country—is the publicity given the \$1,500 fee charged by

### *How Much Per Hour?*

Dr. Joseph Kris for his part in saving Benny Hooper. The fact that Dr. Kris was criticized by his colleagues and parent organization does not assuage the fact that he committed a careless and selfish, if not unethical, act. Time will, of course, heal the wound inflicted upon our profession and, again, we appreciate the Rocky Mountain News rising to our defense.

But here's a final punch to help occupy these editorial columns. Our sense of humor must never be permitted to wane for, without it, wounds heal more slowly, psychopathic states are engendered, and even "we" might have to resort to the overwrought tranquilizing pills. A regional newspaper, since the Kris episode, published an article, "Model Expert on Wolves," complete with picture captioned "Figure is her fortune." She is the world's highest paid model—\$35,000 per year—trade measurements, 36-22-33. She gets "from \$40.00 an hour for fashion modeling to \$150.00 for full figure studies, photo magazines or ads showing her stepping out of a bath tub clothed only in a towel." Furthermore, she hopes to proceed from modeling to film work and she is studying acting at night.

Now, back to other figures: The initial articles upon the Dr. Kris vs. Hooper problem quoted the doctor as claiming his time is worth \$30.00 an hour. May be, for an occasional hour or two—but not hour after hour to a total of some \$1,500.00! But a professional model gets from \$40.00 to \$150.00 an hour for stepping out of a bath tub and nobody seems to scream, at least not in pain.

It seems strange that a country which spends more, many times more, for candy and chewing gum, cosmetic and beauty parlors than for health would seriously criticize a member of a learned profession for figuring his time at \$30.00 an hour. Our colleague might be interested in statistics; he could have been riding the crest of a wave of personal ego brought about by

reading success stories in terms of thousands to millions of dollars, earnings of some less learned professions, or the income of Dave Beck, mogul of the Teamsters Union!

LATE in June, in the medical news digest "Scope," an article appeared warning us against permitting too strenuous sports activities in school children. Based on an interview with Dr.

### *Dangers of School Sports Programs*

John L. Reichert, Assistant Professor of Pediatrics at Northwestern University, the article stated that: "Pre-adolescent and adolescent children are in a vulnerable age. During this age there are periods of rapid growth, with temporary maladjustments and weaknesses. For example, bone growth at this age is more rapid than muscle development, so that temporarily bones and joints lack the normal protection of covering muscles and supporting tendons. During these periods the child is particularly susceptible to dislocations of joints and bone injuries, injuries that can cause permanent damage and interfere with normal growth." In addition: "Violent and sustained exercise, and the bruising and fatiguing activities of strenuous competition are believed by many authorities to throw a damaging overload on an immature heart, lungs, or kidneys." Figures were quoted to show that 75 per cent of orthopedists were against body contact sports and interscholastic athletic competition in young adolescents. A study by B. L. Jackson in Fresno, California, proved that under the stress of strong competition, although children worked harder, their output was no greater and their skills not improved any more than those not under stress. What *should* be done if the pre-pubescent is not allowed highly competitive, body contact sports?

"Children," he says, "should have the opportunity of developing skills in a wide variety of individual and team activities. Many teams are better than few. All children should be on teams. At this age, the star system is bad. Opponents should be matched as carefully as possible as to physical and emotional level as well as to age,

size, and body build. This requires the judgment of a physician as well as a coach.

"Body-contact sports, particularly boxing and wrestling, are dangerous at this age. All competitive athletic programs should be organized with the cooperation of local medical organizations. All children should have a thorough physical examination before entering any program and at intervals during it. There should be continuous medical supervision and individual attention for such factors as injury, response to fatigue, individual emotional needs and undue emotional strain."

Contests should be limited to intramural sports in this group. "This group" does not refer to the high school students who are fully developed physically . . . the juniors and seniors who can "lick their weight in wildcats." It does include the junior high school students and the physically immature early-teen age high school students.

We wonder if our readers have strong opinions pro or con on the subject of sports activities for children. We would appreciate hearing from you.

**R**EADERS will recall our editorial several months ago entitled "Social Security for Physicians" by Dr. Alfred Kahn, Jr. Dr. Kahn stated that Social Security is not insurance and is actuarially unsound. In our March issue, Dr. John D.

### *More About Social Security for Physicians*

Davies of Alamosa, Colorado, had taken exception to Dr. Kahn's conclusions and had suggested a vote on the matter. He had overlooked the fact that Colorado physicians had so voted in January, 1956, 73 per cent favoring voluntary coverage under Social Security, 9 per cent favoring compulsory coverage, and about 18 per cent not in favor of any coverage.

Dr. Davies thereupon contacted members of the San Luis Valley Medical Society on the question of Social Security as it is now available to them—namely, "Compulsory Coverage." Of the twenty-five listed members, there were but four dissenting votes. Said Dr. Davies, "It seems unfair that four

dissenters should be able to thwart the wishes of such a majority." Thank you, Dr. Davies, for your interest and your trouble.

We believe that this vote is significant and that perhaps an increasing number of physicians are taking a long look at their future security. Perhaps they want to be "in there" if and when there is more government and less of the individual dictating our destiny. We hope to be able to pass on to our readers more of this "spot checking" from various sections of the country.

**A**LL M.D.s may not realize that optometrists are not medically trained and not legally allowed to use or prescribe medicine in any form. Occasionally practicing physicians have been asked to administer cycloplegic medicine to children and complicated refraction cases so that the optometrist may then do the refraction (fit glasses).

Although this has happened in only a few isolated instances, there are certain dangers involved. First, there are cases in which a cycloplegic may be disastrous; namely, glaucoma in which the patient might become blind. This is especially true of the narrow angle acute type of glaucoma in patients who may never have had a previous attack. This type of eye can be safely recognized only by a well-trained ophthalmologist. Second, malpractice suits against the optometrist would not apply, since he is not a doctor and did not prescribe the drug. The M.D. would bear the brunt of legal action.

The great majority of optometrists realize that they are not trained to the degree that they can do cycloplegia and they therefore refer cases needing cycloplegia to an ophthalmologist who in turn refers the patient back to the optometrist for the glasses prescription. This is entirely proper. M.D.s other than ophthalmologists are advised to recommend this procedure if they should be asked to administer a cycloplegic for an optometrist.

## Evaluation of triple biopsies for breast carcinoma\*

Grant Sanger, M.D., New York City

*In a cancer hospital where many breast cancers are evaluated, a technic of biopsy of the lesion itself to prove the presence of cancer and biopsy of the axillary and intercostal spaces to prove the absence of cancer, has been valuable in determining the operability of the lesion.*

THE FRANCIS DELAFIELD HOSPITAL was built by the City of New York on land given by the Presbyterian Hospital. It is staffed by Columbia University and Presbyterian Hospital and has been open since 1951. Total capacity equals 300 and is entirely devoted to cancer. We have a breast service there founded and actively guided by Dr. Cushman D. Haagensen. In the past five years, we have seen an impressive amount of breast cancer (268 primary cases). Since ours is a city hospital, advanced disease continues to be prevalent in spite of all education to the contrary. It is this type of hospital that has made this large clinical investigation possible.

### *History of surgical procedures*

Let me renew the history of operations for breast cancer since 1885 when Halsted did his first operation for this disease. Dr. Halsted writes that he had great difficulty in getting doctors in Baltimore to send him breast cancers for surgery. As a result those

he did receive were subjected to radical mastectomies. The local recurrence of disease (on the chest wall) was high. As time went on the operation with many variations spread to other centers but the Halsted radical was never popular with any great number of surgeons. The poor results of surgery in advanced breast cancer were readily apparent to many surgeons in this country and abroad and many variations of the operation were devised.

It remained for Drs. Haagensen and Arthur Purdy Stout to reveal in the Presbyterian Hospital data why this was true. They carefully analyzed the 650 radical mastectomies done at Presbyterian from 1915 to 1934 by the punch card IBM system. All the factors (i.e. edema, inflammation, satellite nodules, fixation to pectoralis, ulceration and size of axillary metastases) were analyzed. In so doing they were able to reveal in these data why the radical mastectomies had failed. This resulted in their clinical criteria of inoperability which I list below.

### *Criteria of inoperability*

1. Extensive edema of the skin over the breast.
2. Satellite nodules present in the skin over the breast.
3. Carcinoma of the inflammatory type.
4. Parasternal tumor nodules.
5. Proved supraclavicular metastases.
6. Edema of the arm.
7. Distant metastases demonstrated.
8. Any two or more of the following grave signs of locally advanced carcinoma.
  - a. Ulceration of the skin.

\*Presented at the July, 1956, Cancer Conference in Denver. The author is Assistant Professor of Clinical Surgery, Columbia University College of Physicians and Surgeons.

b. Edema of the skin of limited extent (less than two-thirds of the skin over the breast involved).

c. Solid fixation of the tumor to the chest wall.

d. Axillary lymph nodes measuring 2.5 cm. or more, in transverse diameter.

e. Fixation of the axillary lymph nodes to the skin or the deep structures of the axilla.

In spite of this guide, Dr. Haagensen found that many breast cancers were failing to be cured by radical surgery. In 1947 Richard Hanley from the Middlesex Hospital in London revealed his and his father's data on the involvement of the internal mammary chain of lymph nodes in breast cancer. This work was confirmed by Dr. M. Margottini, an experienced surgeon from Rome. After the Delafield Hospital had been open for about a year we started removing the internal mammary nodes from the 2nd intercostal space after doing a radical. Finding some of these positive, the futility of doing a radical mastectomy in these circumstances was readily apparent.

#### *Triple biopsy*

At this time Dr. Haagensen became convinced that metastases in the internal mammary chain were so close to what he calls the "Grand Central Terminal" of the lymphatic system that he instituted in Delafield the "Triple Biopsy." When first started this consisted of (a) biopsy of the lesion (proven by frozen section), (b) supraclavicular biopsy, (c) exploration of the 1st, 2nd and 3rd intercostal spaces for removal of the lymph nodes. It was soon found that the nodes in the internal mammary chain were so small that frozen section was almost worthless. Therefore, these tissues were subjected to the Spalteholz technic of clearing the surrounding fat and studying the nodes with paraffin sections. One hundred cases were so studied and it was found that the supraclavicular area was a poor place in which to determine the operability of breast cancer. In fact only two cases were found in which the supraclavicular was positive and the internal mammary areas were negative. Breast cancer goes to the supraclavicular area late in its history. Therefore, in 1954 we changed the triple biopsy to include the apex of the axilla instead of the supraclavicular area. Since 1954 we have performed this type of triple biopsy on

160 cases of breast cancer at the Delafield Hospital. Ninety-two have been negative for regional spread and have had radical mastectomies. Sixty-eight have been positive for spread to one or both of these regions and have been treated with two million volt radiotherapy.

We feel that when the internal mammary chain or the apex of the axilla is involved with tumor that the spread to distant places via the Grand Central Terminal of the lymphatic system is most likely and that the chance of cure with radical surgery is most unlikely. Ultra radical surgery as performed by Drs. Wangenstein and Urban we do not do. In the few instances when we did this operation, results were poor.

#### *Results*

What has our program accomplished for us at Delafield? On the basis of the Haagensen-Stout criteria of clinical operability, we have excluded 25 per cent of the cases from radical mastectomy; with triple biopsy, another 25 per cent are excluded and all of these have been treated with two million volt radiotherapy. This leaves us with 50 per cent whom we feel have hope for a cure from a properly performed radical mastectomy. The most obvious and frequent criticism of this method comes from the surgeon who says, "How can you do this on patients where bed space and operating time are at a premium?" This triple biopsy is time consuming and tedious. It may be that a week may have to elapse before definitive treatment, either surgery or radiation can be started. What of the effect on the patient who has to wait for the answer all this time?

These are valid criticisms and can't be answered other than to say that a radical mastectomy done in the face of spread to the internal mammary chain we believe to be futile. Radical mastectomy is poor palliation for disease beyond its scope. If the method has value, as we believe it has, we will find a way to overcome the unwieldy aspects of its application.

#### *Prevention of breast cancer*

Now what of the future and breast cancer? What can we do to lessen its incidence



and detect it earlier? We must convince obstetricians, pediatricians, general practitioners, nurses and probably most important, nursing supervisors in new born nurseries, that the vast number of young women producing babies should, unless there is a good reason otherwise, breast feed their babies. It is our duty to recommend this. Will this prevent breast cancer? We don't know, but we believe it may help. We feel that cracked nipples are secondary to washing with soaps, detergents and boric acid. These alter the pH of the skin and lead to cracked nipples, discontinuing of breast feeding, and finally to breast abscess. Our advice is to leave the nipple alone while lactation is in progress and wash it with plain water.

#### Cancer detection

A final word about self-examination. The American Cancer Society's fine movie on this needs further showing to as many women's groups as possible. There are, unfortunately, many women who are afraid to feel their breasts even after seeing the movie and after having been taught to do so by their doctors. These women we must examine ourselves at stated intervals in our offices. Many women do not wish to assume the responsibility for this and are happy to have their doctors do it for them.

We must all continue our efforts to reduce the morbidity and mortality in this most common cancer. It will require the best efforts of all of us to do so. •

## Red cell survival studies using radio-chromium\*

Matthew Block, M.D., and Hazel McGaffney, M.D., Denver

*Until the advent of radio-chromium, red cell survival studies were tedious.*

*Now cases of hemolysis may be diagnosed with assurance even though increased production of red cells and reserve liver function may have prevented the development of anemia or jaundice. The technic of this study and its clinical application are explained.*

THE NUMBER or volume of red cells in any individual is a result of the interaction of the rate of red cell formation and the rate of

red cell destruction. Until recently there were no tools available for measurement of red cell formation or red cell destruction. Consequently our approach to the problems of anemia or of polycythemia was based on a series of empiric observations dependent upon the type of anemia. These included the cellular-indices, the degree of erythroblastosis of the marrow, the serum bilirubin and the reticulocyte count. Although useful, these criteria are far from accurate indices of red cell formation or destruction. Little attention was paid to red cell destruction as an etiologic factor in the diseases commonly associated with anemias in every day medical practice. We were mesmerized by the concept that abnormal hemolysis was not present in patients who were not jaundiced. Hemolytic anemias were held to be in the province of the hematologist. They were thought to be rare, not met in general practice, characterized by the clinical and laboratory findings of jaundice, splenomegaly, anemia, reticulo-

\*Presented at the annual session of the Colorado State Medical Society at Estes Park in September, 1956. From the Division of Laboratory Medicine, Department of Medicine, University of Colorado Medical School, Denver. Dr. McGaffney is on the staff of the Veterans Administration Hospital, Denver.

cytosis, erythroblastemia, spherocytosis and an erythroblastic marrow. If this were true, hemolytic disease would indeed be a rare clinical entity.

#### *Technics of measuring rate of hemolysis*

The fecal urobilinogen test was popularized by Watson<sup>1</sup> to measure the pigment excreted daily as a result of red cell destruction. This determination has never received wide acceptance for various reasons, and as later events have shown<sup>2</sup>, it is not too accurate an index of the rate of red cell destruction. The seemingly simple problem of accurate stool collection has been insuperable at every institution with which I have had contact. In 1922, Ashby<sup>3</sup> introduced a fairly accurate method of measuring red cell survival by differential agglutination of dissimilar but compatible cells. Unfortunately, the Ashby technic is so difficult and laborious that it has not found wide acceptance. It will probably never be adaptable to the average hospital laboratory. It has the major disadvantage of not enabling one to measure the survival of the patient's cells in his own body.

Various methods of labelling red cells have been advocated. Of these radio-chromium<sup>4</sup> is accurate enough for clinical purposes and feasible for the average hospital laboratory equipped with no more than a minimum of tracer equipment. Radio-chromium studies may be done in any institution equipped for radio-iodine determinations. We have in general followed the method of Necheles and Weinstein<sup>4</sup> with one modification, checking blood volumes at the beginning and end of the determination. This step is needed to correct for blood volume changes, especially in the patient with a falling hemoglobin or hematocrit. While it is true that the blood volume may remain constant even in these patients, such is not invariably true. Attempting to correct for a falling blood count during a red cell survival test by noting changes in the hematocrit is erroneous.

Fifty ccs. of blood is withdrawn from the patient and inoculated slowly through a wide bore needle into a siliconized flask containing ACD solution\*. Care must be taken to allow the blood to seep slowly out of the needle into the flask to avoid hemolysis. One

hundred microcuries of radio-chromium is then inoculated into this flask and allowed to incubate at room temperature for 30 minutes. One ampoule of vitamin C is added to the flask to halt the labelling by radio-chromium. The red cells are washed gently three times with saline. Fifty ccs. of the resulting mixture in a weighed syringe are injected intravenously into the patient. Unless the labelled red cells in saline are injected without complication, the determination will be inaccurate.

About three hours later, 10 ccs. of blood are withdrawn from a vein in the opposite arm and used for blood volume determination by the dilution principle. The radioactivity of the preinjection sample is compared to that of the 10 cc. sample. Usually the preinjection sample has so high a specific activity that one cc. is diluted with 9.0 ccs. of saline prior to counting.

The rate of hemolysis is followed by withdrawing 10.0 cc. samples beginning on the second day and at 3 to 5 day intervals thereafter depending on the anticipated red cell survival, more frequently if rapid hemolysis is anticipated. Samples are not obtained after 3 to 4 weeks since only the first half of the curve, or half life is determined, the remainder being obtained by extrapolation. Immediately after the last sample is withdrawn, another aliquot of blood is withdrawn and a second blood volume is determined by radio-chromium. The radioactivity in the serially obtained 10.0 ccs. blood samples is determined in a well counter and the disappearance curve plotted on semilogarithmic paper in terms of percentage of radioactivity of the sample, obtained on the second day. The first day's sample is not used as a baseline because of an inexplicable immediate hemolysis, possibly of senescent cells. Results are calculated in terms of half-life, the time at which 50 per cent of the radioactivity disappears from the blood. The results are then corrected for any change in blood volume.

The radio-chromium technic results in a falsely short survival, presumably due to an elution of about 1 per cent of the radio-chromium daily from the red cells. Although several authorities have evolved complicated formulae to correct for this elution, for practical clinical purposes one need only to re-

\*The authors will send detailed instructions to anyone desiring to set up this method.

member that the "normal" half-life with radio-chromium is  $30 \pm 5$  days. This corresponds to a true normal half-life of 60 days or to a red cell survival of 120 days. For example, a patient with a radio-chromium half-life of 10 days would in actuality have a true half-life of 20 days or a red cell survival of 40 days, a third of normal.

#### *Application of red cell survival determination*

Since the level of red cells at any time in the absence of hemorrhage depends on the rate of formation and of destruction it would be theoretically possible to encounter examples of fairly normal counts (hemoglobin, hematocrit, red count or red cell volume) if a patient were hemolyzing rapidly provided that this increment in hemolysis was balanced by an equal increase in red cell production. If a patient were anemic, in the absence of hemorrhage, such anemia could be the result of any combination of a normal rate of hemolysis or of an increase rate of hemolysis with either a decreased, normal or increased rate of production. Since the advent of red cell survival studies all of these combinations have been shown to exist, especially the combination of an increase rate of hemolysis and increased rate of production. The compensated hemolysis of Crosby<sup>5</sup>, is a common situation wherein the ordinary measurements, hemoglobin, red count, or hematocrit are all in the normal range.

These facts may better be understood by analysis of the normal turnover of red cells. Since red cells live 120 days and the red cell volume is about 2400 cc., each day 20 cc. of red cells must be destroyed and 20 cc. must be formed. Some patients are able to form red cells at six to seven times normal rate. They will therefore not become anemic until their rate of hemolysis is more than six or seven times normal corresponding to a survival of less than 20 to 17 days. It is also possible because of the reserve capacity of the liver to hemolyze at four times normal rate, a red cell survival of only 30 days, without developing jaundice. Therefore our time honored concept of hemolysis as necessarily being accompanied by jaundice and anemia is now known to be fallacious, and represents only very severe grades of hemolysis.

As a result of the application of red cell survival studies to a variety of clinical situations it is now known that abnormal hemolysis is a factor in the anemia of cancer, leukemia, rheumatoid arthritis, nephritis, infections and other diseases<sup>6</sup>. In some instances, as in cancer<sup>6</sup>, the abnormal hemolysis is due to a plasma factor; in others it is due to a defect in the red cell<sup>6</sup>.

#### *Case reports*

In our own experience several examples have been encountered where a hemolytic component was proved to exist by red cell survival studies in patients in whom abnormal hemolysis would ordinarily not have been suspected.

##### **CASE 1**

K. P., a 43-year male, had known rheumatic heart disease for many years. Following mitral valvulotomy he was subjected to a red cell survival study. He had a moderate hepato-splenomegaly. Hemoglobin varied from 12.0 to 13.0 grams, bilirubin from 0.10 to 0.15 mgs. direct and from 0.4 to 1.1 mgs. total. Sections of the marrow were moderately hyperplastic. NPN varied from 56 to 92 mgs. Reticulocytes varied from 1.5 to 7.0 per cent. The half-life was 18.5 days by the radio-chromium technic. The only other clues to the genesis of the anemia were a single elevated bilirubin of 0.15 mgs. indirect and 1.1 mgs. total and sporadic reticulocytosis. He then represented a compensated hemolytic anemia.

##### **CASE 2**

N. C., a 56-year male, had known rheumatic fever for 34 years. For many years he had been in and out of congestive failure. On physical examination he was emaciated, liver was enlarged and spleen was questionably palpable. Hemoglobin varied from 8.9 to 9.5 grams, reticulocytes were 1.6 per cent, bilirubin 0.5 mgs. direct and 1.7 mgs. indirect and NPN 56 mgs. Because of the liver disease resulting from his chronic failure it was not certain whether the mild bilirubinemia was due to hemolysis, liver disease or both. Radio-chromium red cell survival study showed a half-life of 18.5 days, about two-thirds normal. This patient had a mild hemolytic anemia which he should have been able to compensate for, but could not. His anemia was due to a combination of increased hemolysis plus failure to respond by an increased output.

##### **CASE 3**

P. T., a 28-year male, had been found to be slightly jaundiced on a routine physical examination. Family history was non-contributory. The spleen was palpated by some observers. Hemoglobin was 16.9 grams and 8 reticulocyte counts

ranged from 1.6 per cent to a high of 5.0 per cent. Bone marrow was moderately erythroblastic. Because of the patient's good physical condition and high normal hemoglobin, hemolytic anemia was not at first seriously considered. Radio-chromium red cell survival study showed a half-life of 23 days. In this patient, the bone marrow, as evidenced by the reticulocytosis, was easily able to compensate for the increased red cell destruction.

#### *Therapeutic implications*

In the absence of hemorrhage, iron deficiency in the human is quite rare. As red cells are hemolyzed their iron is returned to the ferritin and hemosiderin pool in the hematopoietic tissues. If the rate of destruction exceeds formation then this iron will accumulate in the tissues; the patient cannot be iron deficient and iron therapy will be of no value. The rate of red cell formation cannot be increased or hemolysis decreased in the anemias secondary to infections, degenerative or neoplastic diseases except by treatment of the basic disease, i.e. the infection, nephritis or cancer. Only in rare cases are steroids beneficial.

Transfusions will temporarily alter the balance between destruction and formation of the latter. Since survival of transfused red cells in the patient is roughly inverse to the duration of time between withdrawal and transfusion into the patient, it is advisable to

use as fresh blood as possible for transfusions. Since the efficacy of the various hematinics containing liver, iron, vitamins, cobalt, folic acid, etc., in increasing the rate of red cell formation, except in specific deficiencies such as pernicious anemia, is based solely upon the unfounded claims of the drug company brochure, there is little merit in their use. Unfortunately, we are then left with no treatment except transfusions for the anemia of the vast majority of patients with a hemolytic component because in most cases of chronic disease as cancer, rheumatoid arthritis and nephritis the primary disease itself is irreversible.

#### *Conclusions*

Abnormal hemolysis may most accurately be detected by means of a red cell survival test. To date radio-chromium is the most convenient of the available technics. An increased rate of hemolysis is present as etiologic factor in the anemia of many common diseases. Abnormal hemolysis may be present in the absence of anemia. Except in the occasional case such as pernicious anemia, where a specific factor is lacking, there is no treatment for this type of anemia except the treatment of the primary disease or the use of transfusions. The latter is only a temporary measure. Rarely steroids are useful. •

### **Influenza treatment under Medicare**

1. GENERAL—The treatment of eligible dependents with influenza under the Dependents' Medical Care Program will be in accordance with the general provisions of the Program. If hospitalization is not required, outpatient care by civilian physicians will be the responsibility of the patient. Where hospitalization is required, all the provisions of the Program apply as for other medical cases.

2. IMMUNIZATION—Immunization for this disease is a procedure normally administered on an outpatient basis. Consequently, dependents, including those receiving obstetrical and maternity care, will not be eligible to receive influenza vaccine at government expense, except as may be provided for in medical facilities of the uniformed services. A recent resolution of the State and Territorial Health Officers indicates that immunization for infants under three (3) months of age is not recommended. Influenza vaccine for newborn is not authorized at government expense.

3. REPORTS—Cases will be coded under 481 (International Statistical Classification) and no

special reports will be required. Physicians are expected to include Dependents' Medical Care patients in their usual required contagious disease reports to county and state health authorities.

### **Sixth annual Arizona cancer seminar**

The Arizona Division of the American Cancer Society, in collaboration with the Arizona Medical Association, will again be host at one of the country's outstanding Cancer Seminars when it meets in Tucson, Arizona, January 25, 26 and 27, 1958.

The three-day meeting will include lectures by men who top their particular fields in the area of cancer. These specialists are: Dr. Arthur Purdy Stout, pathologist of New York City; Dr. Ross Golden, radiologist of Los Angeles; Dr. Axel Arneson, gynecologist of St. Louis; Dr. Ian MacDonald, surgeon of Los Angeles; Dr. Barrett Brown, plastic surgeon of St. Louis; Dr. Cornelius Lehman, dermatologist of San Antonio; Mr. Dale Trout, physicist of General Electric Co., Milwaukee, and the new medical and research director of the American Cancer Society, Dr. Harold S. Diehl.

# Effects of glutamic acid on behavior, intelligence and physiology\*

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*An original study employing the condiment Accent as a source of glutamic acid. Earlier claims of benefit by this so-called brain food are refuted by the authors in this thoroughly documented paper.*

IN THE PAST DECADE several new drugs have been introduced which, in the fields of mental illness and retardation, have created widespread interest. One of these drugs, glutamic acid, was first used clinically in 1943 and was reported to be effective in the treatment of petit mal epilepsy by Price, Putnam, Waelsch and others<sup>1,2</sup>. Many reports were issued during the next ten to twelve years claiming experimental and clinical improvement in mental function and elevation of intelligence quotients following the use of this drug. However, use of glutamic acid has been disappointing in private patients as well as in institutionalized mentally retarded. Accordingly, a study was initiated at our institution to verify or disprove some of the claims that have been made. Since there are a number of similar psychological, physiological and clinical effects reported to result from the use of both *rauwolfia serpentina* and glutamic acid, the two drugs were simultaneously investigated during the past twelve months at Montana State Training School,

a state institution for the mentally retarded. The study on Serpasil has been published in the American Journal of Mental Deficiency.

Glutamic acid is intimately connected with carbohydrate metabolism. It is oxidized in organs which are largely concerned with carbohydrate metabolism, particularly muscle and nerve tissue. It is the only amino acid which is oxidized by brain tissue<sup>3,4</sup>. It has been shown that glutamic acid increases the activity of brain tissue, and that it probably does so by reactivating acetylcholine. In vitro demonstrations have shown that glutamic acid does reactivate acetylcholine which has been deactivated by dialysis. Physiologically, acetylcholine is deactivated by anoxia and hypoglycemia. Secondly the electrical activity of the cortex is reduced<sup>4</sup>.

Glutamic acid probably stimulates the so-called "Acetylcholine Cycle" by reactivating the enzyme, choline acetylase, which forms acetylcholine in the presence of oxygen and adenosinetriphosphate (an intermediary product of the metabolism of carbohydrates). In this process, glutamic acid is broken down into ketoglutaric acid and ammonia and then into water and carbon dioxide. However, choline acetylase, in combining with glutamic acid, apparently does not attack the glutamic acid bound to cells, but only that which is in solution. It has therefore been reasoned that glutamic acid and its amide, glutamin, have a stimulating effect on body metabolism and especially on brain tissue, when, in a catalyst capacity, they produce acetylcholine, which in turn, is intimately connected with the electrical changes which take place during nerve activity<sup>4,5</sup>.

\*Study conducted by the Clinical Director and the Psychologist of the Montana State Training School. Accent is a condiment consisting entirely of monosodium glutamate, a neutralized form of glutamic acid.



### *Clinical effects*

Since the mode of action of this drug has been rather well worked out, several interesting theories have been formulated regarding the clinical effects which should result from their administration. These theorized results have frequently been demonstrated in the patient as well as in the laboratory.

The most interesting effect reported from the use of glutamic acid has been an increase in the intelligence quotient. Zimmerman, Waelsch, Quinn, Durling and others have reported that glutamic acid raises the intelligence quotient from 3.16 to 10.0 Stanford-Binet units<sup>4,6,7,8,9</sup>. Several reports have claimed that the IQ increase lasts two to three years after the drug is discontinued<sup>6,8</sup>; others that the effect disappears after the drug is discontinued<sup>7,9</sup>. The theory of the action of glutamic acid, bolstered by these experiments and others, has therefore resulted in claims of improvement in social behavior, total personality, intellectual ability and freedom of motion, associated with a reduction of hypersalivation, disappearance of apathy, an obviation of both grand mal and petit mal epilepsy and an improvement in verbal ability<sup>5,8,9,10</sup>. These all-inclusive claims, as previously stated, have not been borne out by the clinical experience of ourselves as well as by others. This increase in intellectual ability has been stressed by various authors and has been shown to increase the ability of rats to learn a maze<sup>4</sup>. It might also be noted that height and weight gains have been reported following the use of glutamic acid and have been attributed to an influence on the pituitary organ<sup>4</sup>.

One of the best series, in our opinion, that has been reported to date, and which unfortunately has been overlooked in the literature, is that of McCulloch who reported in 1950 that no increase in mental or social abilities resulted from the administration of glutamic acid<sup>11</sup>. Several months after we embarked upon our study, a similar report was published by Lombard, Gilbert and Donofrio. Using glutamicol, these authors reported no significant variation in the IQ scores in either a control group or in a group receiving the medication<sup>12</sup>. Various other negative reports have been overlooked, criticized because of lack of control or the variety or dosage of

medication being used or have been ignored for other reasons.

Glutamic acid has been considered, generally, as perfectly safe except for a disagreeable taste and gastric irritation. However, restlessness and overstimulation were reported by Dragunova in cerebral palsy patients<sup>5</sup>. An attempt to use monosodium glutamate (Accent) was abandoned by Zimmerman in 1951 because of a general inability on the part of a considerable number of patients to take the drug in adequate doses without nausea and gastric distress<sup>6</sup>. An allergic reaction was reported in two related patients who suffered from epigastric fullness, eructations, distension and upper abdominal discomfort after the use of monosodium glutamate<sup>13</sup>. However, since glutamic acid powder is essentially inert in the sense that elevations in blood levels are insignificant from the administration of the powder, the sodium salt, Accent, was used in this study.

### *Method of study*

Every effort was made to adequately control this study. None of the involved personnel (including the psychologist) other than the physician and two nurses who distributed the drugs, was aware of the type or purpose of medication being received by any individual during the project. Three similar groups, each consisting of 100 inmates and containing 41 morons, 39 imbeciles and 20 idiots, were matched for age, sex and environment (including housing, diet and caretaking personnel). Each contained five or six epileptics subject to grand mal attacks. On each person daily behavior charts, convulsive records and medication records were kept. Blood pressure and weight were recorded weekly. Hemoglobin was reported periodically.

To evaluate the effects of the medications on intellectual ability, 192 individuals from these three major groups were matched for age, sex and general mental levels and were selected equally from the school, custodial section, shops and ranch. Each of these subgroups contained 16 moron males, 16 moron females, 16 imbecile males and 16 imbecile females. Each subject was given the Revised Stanford-Binet Intelligence Scale, Form M, at the conclusion of the medication. Form L

had been administered prior to this study. No inmates of the lower levels were tested in this manner because of the limitations in the test itself. Practical considerations precluded the use of other tests. The psychologist, who had no knowledge of the type of medication being given to each inmate performed all of the testing to keep scoring errors at a minimum.

Group A received water colored with a vegetable dye to resemble Elixir of Serpasil, Group B received Elixir of Serpasil and Group C received Accent (monosodium glutamate). During the twelve months the groups were studied Group A (water) lost three inmates (one was discharged, one transferred to the state mental hospital for psychosis and one hydrocephalic died of bronchopneumonia). Two inmates were discharged from Group B (Serpasil) and one inmate was discharged from Group C (Accent).

Glutamic acid has been generally used in the form of 1 (+) glutamic acid powder and has been given in doses ranging from eight to twelve grams daily, usually in three divided doses in food or juices. It has been used from thirty days to one year in various studies<sup>3,7,8,11</sup>. It has also been given in doses as high as ten grams three times a day for thirty days<sup>9</sup>. A very small dosage (using a 1 per cent solution of glutamic acid in 40 per cent fructoglucose solution) was used by Dragunova<sup>5</sup>. He reported considerable personality, motor and mental changes for the better on this small amount, with the maximum effect occurring after four to five months of therapy. Another form of glutamic acid, pyrrolidine carboxylic acid (neutralized and unneutralized glutamic acid plus hydrochloric acid), was used in animal experiments by Zimmerman because rats refused glutamic acid but would accept this modification<sup>4</sup>. Various attempts to use another form, monosodium glutamate (Accent), have been given

up because of nausea and gastric distress<sup>6</sup>. However, because of the universal use of monosodium glutamate as a condiment (it occurs in Accent, V-8, Lowry's Seasoned Salt, spaghetti, sauces, canned soups, Franco American Beef Gravy, etc.), we felt that reports of gastric distress and nausea may have been exaggerated. We also used this form of glutamic acid because of its availability in a cheap form by barrel lots. Therefore, each inmate in Group C was given one slightly rounded teaspoonful three times a day with their meals, usually in food or milk for a total of twelve grams daily. All measuring spoons used in this study were standardized and were kept with each medication.

### Results

**A. Psychological Evaluation:** No inmate was given a reason for the testing, and, since many inmates felt that selections were being made for transfer to two new custodial cottages rapidly nearing completion at the institution, the psychologist felt that the group performed at the highest level of its ability. To eliminate the assumption of normal statistical groups, the difference between each inmate's pre-trial score and post-trial score was computed, and these differences were arranged in frequency distributions. Chi-square tests indicated that the distributions of the differences approximated normal curves. There was no significant skewness; however, the curves were slightly leptokurtotic in all instances. The mean differences in IQ units within Group A (Water) and Group C (Accent) are compared in Table 1.

The range of differences in the control group was -12 to +6 with a mean difference of -0.31 and a standard deviation of 3.46 IQ units. A comparison of pre-trial and post-trial scores yielded a critical ratio of 0.72 revealing no statistical significance.

The range of differences in the glutamic

TABLE 1  
*Pre-trial and Post-trial Differences on Revised Stanford-Binet Intelligence Test Scores.  
(Range, Mean, Standard Deviation are in IQ Units)*

Group	No. in Group	Range in Group	Mean of Differences	Standard Deviation- Differences	CR-1 (Pre & Post-trial)	CR-2 (vs Control)
Water	64	-12 to +6	-0.31	3.46	0.72	
Accent	64	-11 to +13	+0.01	4.76	0.02	0.60

group (C) was -11 to +13 with a mean of the differences of +0.01 IQ units and a standard deviation of 4.76 IQ units. A comparison of the glutamic acid group (C) with the control group (A) yielded a critical ratio of 0.60 revealing no statistical significance. The critical ratio must be at least 1.96 between the compared groups before we can begin to suspect a reliable difference due to other factors than chance. In no instance is this even approximated.

**B. Behavior:** Since the effects of Serpasil on behavior were concurrently studied by daily charting, charts were also submitted for the glutamic acid (C) group. There were no indications of appreciable effects of Accent on behavior.

**C. Weight:** No appreciable deviation was noted in the Accent (C) group as compared with the control group. Group A (Water) had an average gain in weight per patient of 2.27 pounds. Group C (Accent) had an average weight gain per patient of 2.47 pounds.

#### D. Epilepsy:

TABLE 2

	Group A (Water)	Group C (Accent)	Total
Number of convulsions 54-55	38	54	92
Number of convulsions 55-56	33	49	82

There was no change in the basic medications for grand mal during 1954, 1955 or 1956 in any patient.

Only grand mal convulsions for the year of the study and for the preceding year were charted for the epileptics contained in the two groups. The glutamic acid group had five less seizures in the year 1955-56 as also did the control group. Because of the small sampling involved, we cannot, however, feel that these results are conclusive, but tend to indicate no significant effect.

**E. Hypertension and Hemoglobin:** There was no indicated effect upon blood pressure or hemoglobin by monosodium glutamate.

#### Comments

With few exceptions, until the most recent reports, it has been claimed that various forms of glutamic acid have increased mental

ability and functioning by facilitating the production of acetylcholine. We found no significant change in intelligence quotient after daily administration of 12 grams of monosodium glutamate (Accent) for one year. This result agrees very closely with that reported by McCulloch in 1950<sup>11</sup>, and more recently, with the conclusion in 1955 of Lombard and his associates who reported no significant changes<sup>12</sup>.

Gastric disturbances, restlessness, overstimulation and nausea reported as reactions to monosodium glutamate did not occur in our study. However, one case of urticaria from Accent did develop near the end of the test period. Improvement in social behavior, obviation of epilepsy, decrease in hypersalivation, improvement in personality and improvement of motor function, all of which have been variously described, did not occur; and we were unable to demonstrate a weight gain resulting from the use of Accent. We were unable to test the effect of this condiment on appetite which was already at a high level.

It might be well to recall that catalysis is "A changing of the velocity of a reaction produced by the mere presence of a substance which does not itself enter into the reaction." — Dorland's Medical Dictionary. Therefore, if glutamic acid acts as a catalyst in the formation of acetylcholine, a point occurs when the addition of more glutamic acid will no longer influence the rate of acetylcholine production.

#### Summary

In a controlled series of cases, it has been demonstrated that twelve grams per day of glutamic acid administered as monosodium glutamate (Accent) have no effect on intellectual ability, motor ability, epilepsy, blood pressure, hemoglobin, personality, or weight. Used as a condiment in small amounts it appears to be safe but may cause allergic manifestations. •

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## Headaches—a diagnostic problem\*

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*The headache of the patient  
is frequently a headache for the doctor.  
To be treated successfully it must first  
be carefully and accurately diagnosed.  
Diagnostic points in the differential  
diagnosis are given. "Migrainoid"  
headaches are discussed in detail and  
helpful hints for treatment are included.*

IN CERTAIN TYPES of practice the diagnosis and treatment of headaches is a very common and, frequently, a mismanaged problem. To diagnose most headaches properly requires a tedious work-up on the part of the physician as well as sympathy and understanding. It is my belief that most headaches can be diagnosed and much relief afforded the patient if the physician is willing to expend time and effort.

For several years after World War II, I conducted a headache clinic at the University of Michigan Hospital. The clinic was active and occupied my time for at least two afternoons a week. After moving to New York

City a clinic was set up at Bellevue Hospital and it was rare that more than one patient a week was seen in it. It was also true that on the wards of Bellevue it was unusual to find a case of ulcerative colitis. There have been many attempts to explain the different manifestations of disease in various economic and cultural populations, but the fact remains that the problem of headaches is far more common in an office practice or a non-indigent clinic practice, than in clinics which are largely devoted to care of medical indigents. When headache is presented, however, it is a real problem, not only to the patient but also to the physician who must attempt to cure him. The classification shown in Table 1 was found useful in the headache clinic at the University of Michigan and will be used for the purposes of this discussion.

In this discussion all of these types of headaches will be considered, but particular emphasis will be placed on those headaches classified as migrainoid. I have used the word "migrainoid" rather than migraine for, as I shall attempt to point out, many headaches which were formerly classified as migraine have been found to be associated with a specific metabolic problem and should be removed from this rather indefinite classification and given a more descriptive name. It is still useful to classify them as migrainoid since, in all of them, the symptoms are similar.

\*Presented at the Midwinter Clinical Session of the Colorado State Medical Society, February 22, 1957, at Denver, Colorado. From the Department of Medicine of the New York University Postgraduate Medical School, New York, New York.



TABLE 1  
*Types of Headache*

Headache due to intracranial pathology
Cranial nerve neuralgias
Headache of ocular origin
Headache of nasal origin
Headache from pathology in the neck
Headache from systemic disorders
Headache of emotional origin
Migrainoid headache

It has been shown by Wolf and his colleagues that intracranial head pain is almost always due to stretching of the arteries, either by pressure or pulling on the arteries from some adjacent structure which is displaced by a tumor, etc., or stretching that is associated with pulsation in a flaccid vessel<sup>1</sup>. While intracranial pathology is not a frequent cause of headache, it must certainly not be ignored. Cranial nerve neuralgias offer relatively little problem in diagnosing because of the typical distribution of pain. Here the problem frequently is not so much diagnosis, but treatment of the neuralgia.

Headaches of ocular origin are extremely frequent and run the gamut from the occipital headache due to muscle imbalance that can frequently be corrected by glasses (and where the only real danger lies in chronic ineffectiveness due to pain) to the frontal and temporal headache due to glaucoma which, if undiagnosed and untreated, may result in permanent blindness.

The paranasal sinuses can be held accountable for a number of headaches but, usually, diagnosis is not difficult. The distribution of the pain is typical and the patient frequently associates his headaches with recurrent attacks of sinusitis. Most of these should properly be handled by an otologist rather than an internist or general physician. Pathology in the neck as a cause of headaches has been relatively uncommon in my experience and most of the pathology was evident and, if corrected, the headache no longer remained a problem.

Many systemic disorders result in headache, the most frequent being the headache of hypertension. Here again we find a difference in the way that certain groups of patients react to altered physiology. It has been the experience of Dr. J. Marion Bryant

and other members of the hypertension clinic of the Fourth Medical (N.Y.U.) Division of Bellevue that headache is relatively rare among these patients. On the other hand, Dr. Bryant states that among his hypertensive patients at the University of Michigan headache was common<sup>2</sup>. Many of the headaches from hypertension can be controlled by drugs, salt-free diet, surgery or a combination of these. Frequently they are controlled without much effect on the hypertension.

Another type of headache that should be included here is the premenstrual or water-retention headache. The distribution of pain is variable, but its periodicity in association with the menstrual cycle enables one to make the diagnosis. Relief can be obtained by the use of ammonium chloride, started three or four days before the onset of menstruation and continued until a day or two after the menses have started.

Headaches associated with overwhelming infection are common, but are secondary to the problem of controlling the infection. Under the next group we will include headaches due to periarteritis of the temporal artery for, while periarteritis is most often a disseminated disease, it may be confined to the temporal artery<sup>3</sup>. Periarteritis of the temporal artery can be controlled by excision of the artery and can be easily diagnosed by finger pressure in front of the ear to stop pulsation in the artery.

It is difficult to defend "emotional headaches" as being separate and distinct from migrainoid headaches. I use the term "headaches of emotional origin" to group those headaches that have a band-like distribution and I have reserved the term "migrainoid" for headaches that are most often unilateral and associated with some characteristic aura plus nausea and vomiting. In addition, the migrainoid type of headache is more likely to have some organic basis with an emotional component acting as a triggering mechanism.

Table 2 is a subclassification of the migrainoid headaches and, with the possible exception of the idiopathic group, all seem to have some organic component, though certainly the emotional factor is important. It is my belief that, as research in headaches continues, we will be able to glean more and more specific types of migrainoid headaches



out of the group now termed "idiopathic." If the term "migraine" is to be used, I prefer to use it in conjunction with this group.

TABLE 2  
*Migrainoid Headache*

Idiopathic	Williams
Allergic	Histamine
Epileptic	Hypoglycemic
Hypothyroid	

Before we go into the differential diagnosis of migrainoid headaches, I should like to describe for you what I consider a rather typical history of "migraine."

Our story starts with a young man in medical school, who had been a reasonably good student in his pre-med. work. He received no marks during the first half of the freshman year and was told, along with the rest of the class, that only two-thirds would be passed on to the second year. This young man developed "migraine headaches" during the Christmas vacation of the freshman year. They were textbook perfect and included a visual aura as well as an oral aura in the form of a metallic taste, unilateral pain (though not always on the same side of the head), and severe nausea and vomiting. They could be prevented by sublingual ergotamine during the period of aura, but, if the headache became established, intravenous ergotamine was required and, frequently, even this did not control the pain. He was seen by a member of the faculty who made a diagnosis of "migraine headache" and put him on an elimination diet and satisfied himself and the student that these headaches were due to a hypersensitivity to eggs. By the end of the school year the student had been desensitized to eggs, passed into the sophomore class and his headaches had ceased.

He next had headaches during his resident training, when he came under a rather severe emotional strain. During a period of about six weeks he had headaches on the average of once a week, usually on his night off or weekend off. This was despite the fact that he ate no eggs during this time. When his acute emotional problem was resolved, he had no more headaches and began to eat eggs as he wished. During World War II he had several bouts of "migraine headaches,"

usually unrelated to the intake of eggs, but associated with a period of rest following such activities as an amphibious landing, or residence at the Anzio beachhead.

After the war he had only one more siege of migrainoid headaches. This was associated with a decision he had to make regarding his medical career and, after the decision had been made, for right or wrong, his headaches ceased and, to my knowledge, he has had none since.

I am sure of the accuracy of this history because I was the medical student involved. I suspect that the headache described above was what we would call idiopathic migraine. It seems evident to me that egg sensitivity had little or nothing to do with it, though the headache appeared to be allergic at one time.

Headaches due to allergy, while present, are probably not as common as they were thought to be in the past. Since they are most always due to food allergy, and since identification of and desensitization to the offending foods is a long and ritualistic process, it is difficult for me to evaluate the true nature of allergy in many of these cases. Since the identification of the causative agent and the desensitization to it is so time-consuming, I prefer using this last in the work-up of migrainoid headaches unless the history so incriminates a specific food that little, if any, doubt remains that this is truly an allergic phenomenon.

Headache as an epileptic equivalent is rare. It can be suspected by a detailed family history and can be controlled in the same way as ordinary epilepsy. Hypothyroid migrainoid headaches are frequently overlooked; when a patient presents himself with migrainoid headaches he should have the status of the thyroid determined and, if there is evidence of decreased thyroid activity, a clinical trial of desiccated thyroid is justified.

The Williams headache<sup>1</sup> is muscle pain and is due to muscle ischemia. It starts in the base of the neck, extends up and over the back of the head and is, most often, unilateral. It occurs at the end of the day and may be aborted by early massage or heat. The usual method of treating it is to use nicotinic acid in flushing doses, three times

a day for three to four weeks. It may cause no trouble for six to eight months, but usually does recur. It is almost certainly psychosomatic in origin and, if one can anticipate periods of emotional stress, it is wise to begin the nicotinic acid before the headache returns.

The histamine or Horton headache<sup>3</sup> is common. It is associated with pain around the eye, rhinorrhea, lacrimation and redness of the eye on the same side. There have been many methods described of desensitizing the patient by using histamine. All of them are time-consuming both to the patient and the physician. I prefer to treat them by the use of large doses of antihistamines which are gradually reduced. In Figure 1, I have shown schematically what I believe to be happening. It is my feeling that by the use of the original large dose of antihistaminic and its subsequent gradual reduction, one does, in a sense, desensitize the patient by the use of increasing amounts of his own histamine. I know of no proof for this hypothesis, but give it to you for what it is worth. It is well, however, to confirm the diagnosis of histamine headache by the injection of histamine<sup>6</sup>.

Last we come to the hypoglycemic group of migrainoid headaches<sup>7</sup>. At the headache clinic at the University of Michigan, about 10 per cent of patients seen over a period of a year, referred as "migraine headache," fell into this group. One must take a careful dietary history because, not infrequently, the headaches are associated with special eating habits, such as a high carbohydrate (pan-

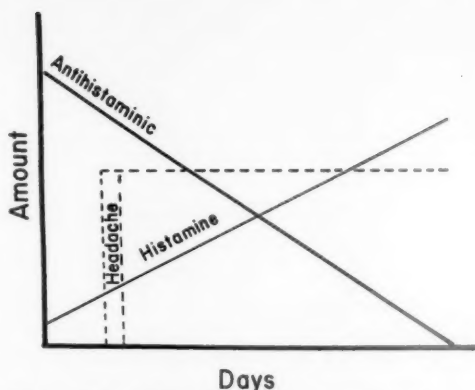


Fig. 1. The horizontal broken line represents the height of histamine in the blood at which a headache occurs. By overloading the system with antihistaminic and gradually reducing it, natural histamine is increased slowly, so that, in effect, the patient desensitizes himself.

cakes and syrup) breakfast over the weekend. Here again one must suspect the diagnosis and use the glucose tolerance test to confirm it. It is necessary to show that the headache is associated with a low blood sugar. You will note, in Table 3, that two patients had a blood sugar level that was definitely low, but no headache was precipitated.

In closing, then, I would stress again that headaches should be approached as a diagnosable condition, but not one that can necessarily be diagnosed easily. The diagnosis requires patience and understanding on the part of the physician and, above all, a meticulous work-up and a high index of suspicion. •

references on 1044

TABLE 3  
*Hypoglycemic Headache*

Patient	IP	FC	FR	MC	MG	AF	CC	VJ	MH	EN	AA	CN	FC
Age .....	30	27	21	25	41	40	30	31	23	36	45	27	26
Sex .....	M	M	F	F	F	F	F	F	F	M	F	F	M
Duration of symptoms (years).....	15	20	14	1	23	4	3	6	10	½	35	1	6
Lowest blood sugar mg. %.....	17	53	46	38	36	32	37	30	41	42	39	31	29
Time of lowest blood sugar (hours)....	3½	4	3	3½	3½	3	3½	3½	3	3	4½	3	3½
Interval between low blood sugar and headache (minutes).....	30	NO HEADACHE	60	0	0	30	30	NO HEADACHE	45	15	120	15	0
Duration of headache (hours) .....	12		3	6	6	4	6		18	12	12	3	12
Relief with diet .....	+		?	?	±	±	+		+	+	+	+	+
Follow-up (months) .....	36		0	0	6	6	4		18	12	4	4	14

# Parathion poisoning case report

J. H. Holmes, M.D., Denver; E. J. Kinzer, M.D., Johnstown; and R. W. Hibbert, Jr., M.D., Greeley.

*An unusual local problem, one of which most of us are unaware, is that of possible poisoning with parathion, an insecticide used in home gardening and by farmers in air-borne crop dusting. In action, poisoning by these agents resembles that of the nerve gases and the most important part of treatment is the use of large doses of atropine. Read this interesting case report and if you find a suspicious case follow the directions of the footnote at the end of this article.*

DURING THE GROWING SEASON extensive spraying is done in the Colorado area with parathion and other organic phosphorus insecticides. Medically these are classified as anticholinesterase agents. The spraying represents individual use by the farmer in his orchard, by the truck farmer with several employees, by the greenhouse owner, or by the city dweller in his home garden. This problem is not limited to rural areas. These insecticides are readily available from the various commercial suppliers and from seed stores. In checking in the City of Denver a year ago it was discovered that one could purchase in most seed stores at least two to five different brands of these insecticides.\* These agents can be quite dangerous when

not used properly. A number of mild exposures in the Colorado area have been brought to our attention during the past three years, and two years ago there occurred a near fatal exposure in a truck farmer. Probably one of the greatest hazards is the purely accidental exposure to these materials. In addition to the exposure observed among persons directly using these agents, two deaths occurred in Colorado in 1954 in children accidentally playing with these anticholinesterase sprays. From a medical standpoint, prompt recognition and treatment of poisoning with these agents will usually prevent a fatality.

Besides their use by the individual farmer or gardener, the anticholinesterase agents are used extensively by some of the commercial airplane crop-spraying companies in this area. These agents are particularly effective against the beet and bean beetle and their spraying period extends from late June to mid-August. This report covers observations on a near-fatal exposure to parathion in a crew member of an airplane spraying company, and also includes the results of blood testing of other crew members.

## CASE REPORT

K. A., a 19-year-old white male, was working in the ground crew of an airplane spraying outfit based in Greeley, Colorado. He and the pilot to whom he was assigned had been working for several days at the airport in Johnstown, Colorado. About noon of July 28, 1955, when K. A. was loading the plane with parathion, he complained of severe stomach cramps. He had stated previously that he frequently had such cramps when he was hungry. They had been working since 5:30

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\*We wish to acknowledge the help of Mr. Don Spencer of the Federal Wild Life Service in supplying information with particular reference to the commercial availability and dangers of these agents, and we wish to acknowledge the technical help and assistance of F. M. Hein with the laboratory studies and D. Yasuhara with the psychologic tests and interviews.

a.m. without food, so the pilot paid little attention to K. A.'s complaints. They loaded the plane together. According to the pilot, K. A. had difficulty in "propping" the plane. The pilot had to call to him several times to get out of the way. K. A. vaguely remembered "propping" the plane, but recalled nothing after that time.

The pilot "took off" and was gone approximately twenty minutes. When he returned, the boy was lying face down on the airstrip in the bright sun. The pilot dragged him into the shade and wet the back of his neck with water to cool him off, thinking the boy had collapsed from heat exhaustion. At that point a second pilot, the narrator of this story, first saw the boy who was still lying in the shade and mumbling incoherently. They asked him how he felt and he said that he was extremely hungry. He could not walk so they started to carry him to the car. However, he did stagger along while they held him upright between them. When they reached the car, he flopped on the back seat. Because of the previously mentioned story of "hunger cramps" they were not very concerned. On reaching Johnstown, they turned to ask him what type of malted milk he wanted to relieve his hunger. At that point they noticed he was frothing at the mouth and having severe convulsions. They immediately carried him to the doctor's office.

#### *Exposure to parathion*

Another version heard at that time gives a more adequate explanation for the acute toxicity. According to this story, K. A. was emptying concentrated 25 per cent parathion from a steel drum, using a hand pump. After the pump has drained the drum, it is customary to turn over the drum and pour out the small amount remaining. In this instance, the pump did not empty the drum, and when K. A. turned it over, several gallons came out on his clothes and on the ground. He was not wearing protective gloves or mask.

When first seen by a doctor, K. A. was convulsing, irrational and frothing at the mouth. Blood pressure was 240/140 and pulse 230. He was having respiratory difficulty and was quite cyanotic. He was given 1/50th grain of atropine by injection and improved temporarily only to have respiration become progressively more labored. The patient again

became quite cyanotic and finally ceased breathing. He was revived with artificial respiration and oxygen, transferred to an ambulance and taken to the Weld County Hospital. Oxygen was given at the rate of 5 to 10 liters per minute. He stopped breathing once en route, and artificial respiration was again used. When they reached the hospital emergency room, he was given another 1/50th grain of atropine.

#### *Hospital findings*

Physical examination on admission to the hospital showed a completely irrational patient who was convulsing periodically. Froth was coming from the mouth, respiration was labored, and there was marked cyanosis. Temperature was 100, pulse 200, respiration 40, and blood pressure 240/140. There was a strange odor of chemical on clothes and skin. Pupils were fixed and markedly constricted. Teeth were clamped and there was partial airway obstruction unless support was given to the lower jaw. The frothy sputum coming from the mouth was rather tenacious and when suction was applied to the throat, plugs of mucus were removed. Examination of the chest revealed labored respiration, and generalized rales and rhonchi throughout both lungs. The heart was normal in size. There was extreme tachycardia, but the rhythm was regular. The extremities showed complete ataxia and there were muscular twitchings when the patient was not convulsing. There was involuntary micturition and defecation.

After admission, oxygen was started and suction was used to clear the respiratory passages. Sodium luminal was given to control convulsions. Since drastic measures seemed indicated, 1/2 grain (30 mgm) of atropine was administered at 3:00 p.m., 3 mgm intravenously and 27 mgm intramuscularly. The total dosage of atropine given K. A. in the first 24 hours is shown in Table 1. Marked improvement followed the large dose of atropine, but it was felt necessary to continue the medication as noted. From 3:30 to 4:30 p.m. he had continued respiratory difficulty and required frequent suction. He quieted down and was breathing more easily by 5:00 p.m. At that time he was completely irrational and disoriented, talking about girls, trips he was going to make, etc. He was completely unaware of the fecal and urinary incontinence.

TABLE 1  
Shows Atropine Dosage Given K. A. During  
the First 24 Hours of Treatment Following  
Acute Parathion Poisoning

Time	Atropine	
	Grains	Mgs.
7-28-55		
1:30 P.M.	1/50th	1.2
2:20	1/50th	1.2
3:05	1/20th (IV)	3.0
3:05	9/20th (IM)	27.0
4:00	1/50th	1.2
4:50	1/50th	1.2
5:20	1/50th	1.2
6:00	1/50th	1.2
6:30	1/50th	1.2
7:00	1/50th	1.2
7:30	1/50th	1.2
10:00	1/50th	1.2
12:00	1/50th	1.2
7-29-55		
2:00 A.M.	1/50th	1.2
5:00	1/50th	1.2
9:00	1/50th	1.2
Total		46.8

NOTE: 3 grains sodium luminal at 1:30 P.M.

He asked the same questions many times and seemed unable to recall what he had said previously. The oxygen tent was discontinued at 5:00 p.m., and by 6:00 p.m. he was asking for water. According to the nurses' notes he complained frequently of a hungry feeling and pain in his stomach and chest during the early evening. By midnight he was still irrational, but his conversation was more coherent than previously. About 2:00 a.m. he woke up screaming because "the lions" were chasing him.

On the morning of the 29th, the patient was feeling quite well and ate a good breakfast. The first day he was somewhat confused and did not remember the events of the preceding day. He remained in the hospital until August 2, eating well, and being quite active around the ward. His only complaint throughout the remainder of his hospital stay was difficulty in remembering, especially people and events related to his past experience. Frequently he could not recognize his visitors. When asked by the nurse to do something, he would completely forget the instructions given him a few minutes previously. Except for miosis his physical examination was normal by the time of discharge.

#### Subsequent course

The day K. A. was taken home (August 2) he broke down and cried and said that home did not look right, and did not look as if it were "his house." Shortly after his return K. A. had severe stomach cramps, so severe his mother thought at one time she would have to call the doctor. He felt like he had to vomit, but never did. He ate nothing that day except a bit of tomato soup. The following morning he would not eat his breakfast. For the first two weeks at home he did not sleep well, going to bed at 10:30 p.m., waking up at 12:00 midnight and again about 3:00 a.m. In the morning the family frequently found the upstairs lights had been turned on even though K. A. did not remember doing so.

He did not care to read because his eyes bothered him considerably. When looking at television his vision blurred and objects moved all around the room. He said it felt as if his eyes were crossed. Occasionally he had pain localized to the outside corner of each eye, especially when looking at near objects. He also suffered from occasional momentary spells of black-out and dizziness. Frequently when reading the paper he could not remember what he had just read. K. A. had no dreams until the third week when he dreamed he was in a severe fight. The next morning the family found the bedroom window broken, and K. A. had a slight cut on his hand. He had no recollection of what had happened but did remember at a later date.

The family described various personality changes. They felt that K. A. had been more irritable since his exposure, lost his temper easily and flared up over the slightest incident. They stated that this was not typical since his previous disposition had been a pleasant one. Formerly he had been a leader in his high school group. His friends now used such terms as "cracked" and "off base." He also showed an unusual interest in girls and made sexual advances that were not typical of him prior to the exposure.

Around the first of September he started loading potatoes at Gilcrest, Colorado, working 8 to 10 hours per day. Because of extreme fatigue he quit this job after three weeks. This was also advised medically because his judgment did not appear to have returned to normal, and it was felt that he might be par-



ticularly prone to accidents when handling machinery. In November he started work at the sugar beet factory in Greeley.

#### *Residual symptoms*

For over a month after the exposure K. A. had various neuromuscular complaints which included a sharp pain between the shoulders radiating to the neck and especially noticeable at night; a dull pain in the arms and shoulders noted during the daytime; and numbness of the arms and legs, particularly the left forearm. The neurologic examination and sensory studies of these areas revealed no definitive deficit though he did state the feeling on the skin of the left arm and leg was quite different from the feeling of the same objects applied to the right side. He qualified it by saying that the objects were less distinct and harder to identify. He also complained of "jumping" of the muscles in his right shoulder and thigh. His hands and feet frequently went to sleep, and occasionally he staggered when walking.

Psychologic tests of simple abilities were administered three different times, namely 48 hours, 2 weeks and 4 weeks after the exposure. Improvement occurred between the first test and second test on memory for objects, serial subtraction, digit span and word names. Apparently the number of errors made did not appreciably change, but the time required to carry out the test was prolonged at 48 hours after exposure. For example, the patient required 10 minutes and made four errors in serially subtracting 7 from 100, 48 hours after exposure. Two weeks later he took 70 seconds to perform the same test and made five errors.

#### *Electroencephalograms*

His EEG findings were definitely abnormal on the first record taken August 10. All subsequent records up to December, 1956, continued to show the same abnormalities. The report of the record of August 10 is as follows:

*Description of the Record:* The background activity is fairly well organized, but is somewhat slow, consisting of many 6-8, and some 8-10 c.p.s. waves. Numerous slow waves and sharp waves appear in the occipital and parietal leads which are usually higher on the left. Some of this activity tends to spread to other leads and appears to be a larval burst; one of these becomes generalized

with spikes. Biparietal humps and 14-16 c.p.s. spindles are seen during sleep. Hyperventilation (3 minutes—good) produced no build up. Photoc driving had no effect.

*Impressions:* The record indicates a severe diffuse cortical disturbance which is most pronounced in the occipital regions, especially on the left. The paroxysmal activity suggests a tendency to convulsions. The spike activity in sleep is interpreted as evidence of hypothalamic or thalamic activity\*.

#### *Cardiac findings*

One of the more interesting observations in this case was the pronounced hypertension first noted by the doctor in Johnstown, Colorado, and also later at the hospital in Greeley; both readings were 240/140. There was an associated tachycardia of 170 to 200. A half hour after hospital admission the pressure had dropped to 160/120 and at an hour and a half, was 130/80. The pulse at this time had dropped to 120. This is the most pronounced elevation in blood pressure observed at this institution, in patients with acute parathion poisoning. Mild hypertension of 160 to 170 has been reported by others<sup>2,3</sup>. Frequently, during the periods of severe anoxia, the blood pressure will drop to shock levels, but in K. A. it was maintained at this elevated level throughout the periods of respiratory difficulty.<sup>1,6</sup>

Three EKG's were done: On July 28, the day of exposure; on August 1; and on August 10. The first EKG was reported as showing abnormal vertical axis and moderate clockwise rotation. The T Waves were peaked in Lead V-4. The second tracing showed mild positional changes, shortening of the PR interval and increase in amplitude of T Waves similar to the changes of hyperpotassemia. The third tracing showed inversion of the T-Wave in Lead 3 and in V-1. PR interval remained short. The electrical position of the heart had changed from vertical to intermediate position. T-Waves continued to show high amplitude.† In summary the cardiologist stated that these three tracings showed minor changes in rate, PR interval, QT interval, position of the heart and in configuration of the T-Waves. These changes were non-specific and did not permit a precise explanation

\*Detailed reports of the EEG findings and psychiatric interviews will be included in another paper. We wish to thank Dr. Harold Locketz and Dr. Eugene Turrell for their help with the EEG and psychiatric studies.

†The authors wish to express their appreciation to the late Dr. Malcolm McCord for interpreting these records.

TABLE 2  
Serum Electrolyte Values, Hematocrit and Serum Creatinine Following Parathion Poisoning

Date	Na	K	Cl	P.P.	Hematocrit	Creat. mg%	PO mg%
7-28-55	153	4.55	101.3	7.17	49.8	0.66*	6.6*
7-29-55	154.2	4.15	107.8	7.89		1.5*	5.5*
7-30-55	150	4.0	105.5	7.32	46.3	1.5	4.6
8- 2-55	151	4.65	102.3	6.86	45.5	1.0	3.2
8-10-55	147.5	4.1	104.2	7.2	44.5	0.3	3.1
9-14-55	144	4.3	104.2	6.5	45	1.4	3.7

\*Lone in Greeley.

but suggested autonomic nervous system effects, electrolyte abnormalities and ischemia. Similar non-specific changes have been seen in other cases of anticholinesterase poisoning.

#### Laboratory studies

Intensive laboratory studies were made. Shortly after hospitalization, the sedimentation rate was 10 millimeters an hour, the hemoglobin was 15.4 gms., the white cell count was 19,000 and the differential count showed segmented forms 72, stab forms 5, lymphocytes 22, monocytes 1. At the time of discharge the white cell count was 6,400 and the differential count showed segmented forms 51, lymphocytes 46, and eosinophils 3. Initial urine sample contained albumin and sugar, but subsequent samples were negative. Examination of urinary sediment was negative. Red cell fragility was normal. Leucocytosis is frequently seen in parathion intoxication.<sup>1,2,3,4</sup>

The blood and serum analyses are shown in Table 2. Hematocrit was elevated initially (49.8 per cent cells) and later dropped to an average of 45 per cent cells. Serum sodium was elevated (153 mEq/L) and later dropped to the normal range (144 mEq/L). Serum phosphate values were high (6 mgm. per cent) immediately after exposure but by the third day had dropped to normal values (3.2 mgm. per cent). Serum potassium did not change significantly. In a previous case there was a significant drop in the serum potassium values after exposure.<sup>1</sup> Serum creatinine values as in a previous case were low the first day after exposure. Total protein and serum albumin concentration were high immediately after exposure as compared with values reported some time later. For example, the day of exposure, total protein was 8.4 gm. per cent, albumin 5.6 gm. per cent. Two days

later total protein was 7.84 and albumin 4.58, while two weeks later total protein was 7.2 and albumin 4.1. Serum globulins remained relatively constant.

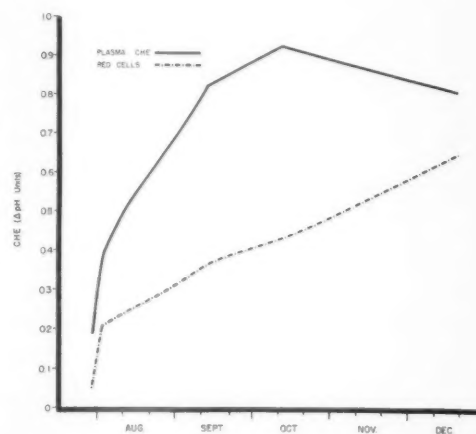


Fig. 1. Shows the marked drop in red cell and plasma cholinesterase values in K. A. following exposure to parathion and the relative rates of recovery of each.

The cholinesterase (CHE) values for both plasma and red cells are diagnostically specific for exposure to anticholinesterase insecticides (Figure 1). There was a drop to near zero values in both red cell and plasma cholinesterase immediately after exposure. The rate of return of these values to normal is of interest. The red cell CHE takes much longer to return to normal than does plasma CHE. This has been described for many other cases of parathion poisoning.<sup>2,3,4</sup> About 26 to 30 days is usually required for the plasma CHE to return to normal and 100 to 120 days for the red cell CHE to reach normal levels. This corresponds to the time required for complete replacement of circulating plasma

proteins and circulating red cells, respectively.

Urinary excretion was followed from 7:00 p.m. of the day of exposure throughout the period of hospital stay. Determinations carried out included complete electrolyte studies, creatinine, ketosteroids and corticoids. Except for a high urinary excretion of phosphate during the first three days, there was no abnormality in the urinary electrolyte pattern. Corticoid and ketosteroid excretion appeared to be high in the first 12 hours, but this was not conclusive.

In our series several cases of anticholinesterase poisoning have shown evidence of coagulation abnormalities. The results suggest a cyclic variation in the coagulation mechanism. After exposure there is a tendency for increased coagulation followed after several days by a period of prolonged coagulation. There is no conclusive evidence as to whether these changes are important clinically though one case developed severe thrombophlebitis of the right leg.<sup>1</sup> The day of exposure, K. A. had a shortened prothrombin time, a shortened prothrombin consumption time, and a prolonged thrombin time. Four days later prothrombin time was prolonged, prothrombin consumption time was still shortened, and thrombin time was prolonged. Unfortunately, serial studies could not be obtained, but these results are consistent with a tendency to more rapid coagulation followed by a tendency for a prolonged coagulation as in the other cases.

#### *Residual symptoms*

Usually, cases of acute parathion poisoning, if they recover, have no residual symptoms. Almost nine months after exposure, K. A. still showed significant personality changes and persistent EEG changes. K. A. has been seen several times by a psychiatrist. According to the psychiatrist, it is not clear whether these personality changes represent a new personality complex, or merely a release of a latent personality complex. There has been one other case in our experience with persistent EEG abnormalities. Much further study will be needed to determine whether an acute intoxication with these agents can produce permanent EEG and personality changes, or whether repeated low

grade mild exposures over a period of time might produce permanent damage, particularly of the central nervous system. This is important from the standpoint of compensation.

#### *Discussion*

During the acute phase of the parathion intoxication K. A. stopped breathing twice and probably would have died had he not received adequate therapy. The two most important features of therapy in these cases are maintenance of respiration and adequate doses of atropine. Maintenance of adequate respiration includes suction of the excessive bronchial secretions to maintain a clear airway, and artificial respiration, especially with positive pressure breathing. In emergency situations, positive pressure breathing can best be administered by mouth to mouth breathing, by manual pressure on the bag of an anesthesia machine or by use of a bellows.

Large doses of atropine are required in treatment of these cases. As can be seen from Table 1, initial doses of 1/50th grain produced only temporary relief in K. A. and sustained benefit was obtained only when a half grain was administered. Apparently toxicity caused by these anticholinesterase agents requires much larger doses of atropine than are needed in other therapeutic situations. Furthermore, these cases appear to have a marked tolerance for large doses of atropine. A review by Freeman and Epstein<sup>3</sup> of all severe cases of parathion poisoning recorded in the literature showed a definite relationship between rate of recovery and both the amount of atropine used as well as the time interval before it was given. Other reports in the literature support this concept. Apparently it would be much safer to err on the side of too much atropine than to err on the side of too little since large doses of atropine, though producing prolonged discomfort, are usually not dangerous, particularly in these cases. A good starting point in therapy is 2 mgs. of atropine or 1/30th grain which is repeated every 15 to 20 minutes until full atropinization or a definite therapeutic response is obtained. Frequently it is necessary to continue atropine medication for a 24-hour period. Some of the laboratory changes observed in these patients may be an effect of

the atropine but this is no contraindication for its use.<sup>6</sup>

#### *Screening for unsuspected cases*

Following the accident described above, concern was expressed as to whether the other men working in these airplane spraying companies had any evidence of absorption of these anticholinesterase agents. K. A. and his family had stated that several days prior to the severe exposure he had not felt well. He had complained of headache, loss of appetite and a "tired feeling." As soon as he returned from work he would drop into a chair and go to sleep. The night preceding the severe exposure he had been nauseated and had tried to vomit, but was unable to do so. Thus K. A. may well have suffered from some absorption of this agent prior to the severe exposure.

Last summer in the Greeley area there were five companies conducting airplane spraying operations. Each company employed 10 to 30 men. These men included the pilots, the ground crew who were responsible for the mixing of the spray and the loading of the plane, and the men who stand out in the fields to mark the path the plane should take. In most instances, parathion is diluted from a 25 per cent liquid concentrate (occasionally 40 per cent) to a 2 per cent concentration for the spraying operation. The same general dilution is also used for the dusting powders. The crews work from dawn to dusk. If there is no wind, it is a continuous operation. However, frequently a high wind in the middle of the day will cause them to suspend operations for several hours. Eating is quite irregular and they may go without food for some hours, or eat pick-up lunches while working. It takes approximately 20 minutes to spray a load of insecticides on the fields. The plane then returns, is loaded as rapidly as possible and departs on another trip. While the pilots and foreman work steadily throughout the summer with the same outfit, there is considerable turnover in the personnel of the ground crew. There are also several companies in Greeley which buy these sprays in bulk and process them for use either by the farmers or by the spraying companies. This same operation might well be typical of many other Colorado communities.

#### *Cholinesterase studies*

Several trips were made to Greeley and blood samples were obtained from approximately 25 persons involved in the spraying operations described above. These studies were made in the first and second weeks of August, after parathion had been in use for a period ranging from four to six weeks. Blood samples of 3 or 4 cc. were collected in heparinized tubes. They were drawn in the offices or shops of these companies while the men were at work. No attempt was made to control factors such as exercise, time between meals, etc. Red cell and plasma cholinesterase were determined in each instance. Results of these studies are shown in Table 3.

In studies of over 600 normal men applying for work in a plant manufacturing these anticholinesterase agents normal range for red cell cholinesterase was found to be .6 to 1.1 delta pH units, and for plasma cholinesterase .7 to 1.2 delta pH units<sup>7</sup>. Both values are expressed as delta pH units using the Michel method<sup>8</sup>. Very few of the men studied showed any symptoms (See Table 3). When symptoms were present they consisted of a slight chest constriction, what the men described as "feeling low," increased sweating, running nose, and headache. Since these symptoms are also quite characteristic of a "cold," it was not surprising to discover that several had noted more frequent colds during the summer. In the group of 25 men examined, 18 had values for red cell cholinesterase below the lower limit of a normal range (.6). The lowest value noted was .41 delta pH units. Of this same group, seven had a plasma cholinesterase value below .6, and a total of 12 had a value below .7. This represented a surprising number of low cholinesterase values and suggested that many of these men had absorbed some parathion.

The findings of Grob, et al<sup>2,3</sup> indicate that after a severe exposure the plasma CHE values return to normal in about 26 days whereas the red cell cholinesterase requires 120 days to return to normal. Therefore, an individual who had had an exposure one month previously might have a normal plasma cholinesterase but a reduced red cell cholinesterase. Applying this same line of reasoning to the above group, one might suggest that those seven men with values for

TABLE 3

Shows the values for red cell and plasma cholinesterase results of bloodsampling on a group in the Greeley area during the first two week-spraying operation or plant-mixing operation of men working with parathion in the airplanes of August, 1955. The job designation is "A" for Administrative, "P" for Pilot, "G.C." for Ground Crew and "H.M." for person packaging and mixing parathion. The normal range for red cell cholinesterase is .6 to 1.1 delta pH units and for plasma .7 to 1.2 delta pH units.

Number	Age	Job	Time on Job	Symptoms	Red Cell CHE	Plasma CHE
1	42	A	0	None	.66	.59
2	29	P	2 mos.	None	.51	.59
3	27	P	2 mos.	None	.59	.75
4	33	P	2 mos.	None	.59	.36
5	30	P	2 mos.	Yes	.58	.69
6	21	P	2 mos.	None	.55	.87
7	18	P	2 mos.	None	.49	.52
8	45	P	2 mos.	Yes	.68	.86
9	?	P	2 mos.	None	.64	1.08
10	21	G.C.	..	Yes	.47	.70
11	17	G.C.	2 mos.	None	.47	.43
12	18	G.C.	1 day	None	.69	.92
13	20	G.C.	5 days	Yes	.59	.99
14	?	G.C.	1 mo.	None	.58	.91
15	?	G.C.	2 mos.	None	.58	.79
16	?	G.C.	2 mos.	None	.41	.69
17	?	G.C.	2 mos.	None	.56	.67
18	29	G.C.	2 mos.	None	.69	.95
19	46	H.M.	3 mos.	None	.52	.76
20	39	H.M.	3 mos?	None	.53	.65
21	53	H.M.	3 mos?	None	.52	.64
22	47	H.M.	3 mos.	None	.51	.46
23	24	H.M.	3 mos.	None	.60	.70
24	57	H.M.	3 mos.	None	.47	.54
25	56	H.M.	3 mos.	None	.48	.51

red cell and plasma cholinesterase both below .6 had had rather recent absorption of the active agent. Whereas, those men with a low red cell cholinesterase but a normal plasma value, probably had had a significant exposure in the previous month. It will be noted that ground crew members and mixers were most apt to have low values whereas pilots tended to have normal cholinesterase values. During loading of these planes, there is usually an excessive cloud of dust surrounding each loading operation. The pilot does not appear until after the plane has been loaded; then leaves the area while the loading operation is repeated for the next trip. Some of those labelled handlers and mixers were men working in the supply houses where the bulk agent was packaged. While some of these men had low cholinesterase values, this did not appear to be as hazardous an operation as the work of ground crew

members involved in loading the planes. While the pilot is less apt to absorb significant amounts of these agents, it is particularly important that any exposure he suffers be picked up immediately since his work requires quick and accurate judgment which may be seriously impaired by exposure to these toxic agents. In the manufacturing of these anticholinesterase agents there is often a rule that workers who have been exposed are not permitted to drive their own cars home.

#### Diagnosis in retrospect

A situation described by Dr. J. F. Huffman of Fort Collins might well emphasize this point. A pilot in one of the spray companies had been treated for several years because of an undiagnosed eye condition, but otherwise was physically normal. On August 1 (1955) he finished flying and dusting the



last row of crops when his plane crashed. The pilot had no recollection of the accident or of events immediately preceding the accident. At the time he was using a 2-4D spray, but the plane employed that morning had been one which had not been in service for some time and had last been used for spraying with parathion. He suffered a lacerated wound on the left eyebrow, abrasions and contusions of the nose, fracture of the left tibia and fibula, and a fracture of the first lumbar vertebrae. Blood was not obtained immediately after the accident, but some three months later this patient still had a low red cell cholinesterase (.53) though his plasma value was at the upper limits of normal (1.37). One month later, approximately four months after the accident, red cell cholinesterase was .60 and plasma 1.22. While this is not absolute evidence, the cholinesterase values are consistent with a significant exposure approximately three months earlier. Certainly if there is any question of exposure particularly in the pilot group, a doctor should check the man and obtain the blood cholinesterase. If the cholinesterase values are low, then suspension from work or other necessary precautions should be taken before serious injury occurs.

The observation that some of these men working with parathion show evidence of absorption of the agent as indicated by the reduction in red cell cholinesterase is similar to the experience of others who have studied workers in orchards or in manufacturing plants.<sup>4,9,10,11</sup> Apparently such workers may have a reduction in red cell cholinesterase without symptoms. At other times the only symptoms are those of a cold which may not be recognized by the physicians as indicative of exposure. An unusual example of this situation is the manager of an outlet selling insecticides in Loveland, Colorado, who reported to his doctor one year ago because of a "cold" and tired feeling during the parathion season. His red cell cholinesterase was .2 and his plasma .5 delta pH units, both extremely low values. It was not possible to remove him from contact with the agent, but his technique was checked carefully and he was followed closely the rest of the summer. Fortunately the red cell cholinesterase dropped no further. During the winter when he had

no contact with these agents maximum red cell values were .6 and plasma values 1.18 delta pH units.

#### *Action of cholinesterase*

One might postulate that the blood cholinesterase acts as a buffer since it combines irreversibly with the insecticide, thus preventing passage of the agent to the tissues of the central nervous system with resultant generalized symptomatology. This might happen especially with prolonged minimal absorption of the agent. However, if such an individual then suffered an acute exposure he might have more severe symptoms and because less of the insecticide could combine with the blood cholinesterase, greater amounts would then pass into the tissues. For this reason it seems important to check frequently the blood of men working with these agents.\*

Cholinesterase determinations have been of considerable value in judging the effectiveness of safety measures applied to men working with these anticholinesterase agents. They also are useful in determining whether a man should continue working with the agents or be assigned to other activities. In situations where there are no symptoms it is much harder to decide whether such an individual should continue to work with the agent. Certainly if transfer to another job is easy, it should be done. However, when this work represents the individual's only source of income the decision is more difficult. The practicing doctor, when a patient such as a greenhouse worker comes to him with vague symptoms and a history of working with these agents, should always obtain a blood cholinesterase. Perhaps periodic checks on such workers are advisable. Since the use of such insecticides is necessary and relatively safe with proper precautions, it is important that the doctor work with the patient, examine him frequently and try to revise safety procedures if there is any evidence of absorption. We have run blood cholinesterase determinations on many individuals in the State of Colorado working with these agents and know that many have used these agents for several years without serious accidents.

\*The laboratory of the University of Colorado Medical Center in Denver can do the cholinesterase determination in suspected cases if they are sent 4 cc. of heparinized blood.

### Summary

A case of severe parathion poisoning occurring in a crew member of an airplane spraying group was presented. This patient stopped breathing several times during the period of acute toxicity. The most important aspects of therapy were the maintenance of adequate respiration and the administration of large doses of atropine. Studies of laboratory data, EEG, EKG and psychologic tests were presented. A study was also made of other crew members working in these airplane spraying groups, which pointed out that many of them had a significant reduction in red cell cholinesterase even though most of them were not complaining of any specific symptoms. Precautionary measures to be taken for men working with these agents were discussed. The role of the practicing physician in helping these men prevent serious accidents was considered. •

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## Simplified control of vomiting of pregnancy\*

Leon Parrish Fox, M.D., San Jose, California

*Using an oral preparation combining the antihistamine meclizine and the vitamin pyridoxine, good results were obtained in controlling nausea and vomiting of pregnancy.*

NAUSEA AND VOMITING of pregnancy, being a frequent, annoying and occasionally serious problem, deserves every effort toward control, if not complete relief, by the simplest means available.

It is not the purpose of this paper to elucidate the theories that have been proposed concerning the etiology of nausea and vomiting of pregnancy. The cause is unknown but

it is apparent that there are a variety of factors which may trigger the pregnant patient into this toxemia of early pregnancy. The rich medium for the development of this condition is prepared by the many nutritional, metabolic, hormonal, and toxic changes that occur after implantation of the fertilized ovum. The human mechanism is able successfully to resist the causative stimulus in approximately two-thirds of all pregnancies in this country but the remaining one-third of pregnant women have varying degrees of failure thus to resist and to a few of these, the outcome may be death.<sup>1</sup> Why this resistance is complete in Siam, Indo-China, Malaya, Iraq, Palestine, and Egypt while comparatively so inadequate in Europe and America is unexplained.<sup>2</sup>

Any opinion formed on the treatment of

# Benign ovarian tumors in women under forty\*

Harold S. Morgan, M.D., Lincoln, Nebraska

*This paper presents a classification of ovarian tumors based on age. The physician has a serious responsibility upon discovering an ovarian tumor and the author points out that too often the right ovary is "attacked" because of its proximity to a "not too sick appendix" in the hope that the pain about which the patient has complained will be relieved. After careful workup, in the event the diagnosis is obscure, one is justified in laparotomy. Conservative surgical procedures while within the abdomen are emphasized by the author who points out that needless sacrifice of normal ovarian tissue is coming more and more to the attention of hospital tissue committees. Study of types of tumor and their potential of malignancy is important to the surgeon who must make the decision at the table.*

OVARIAN TUMORS arising in women under 40 years of age fall for the most part into the category of benign growths. Therefore clinicians will be faced on many occasions with the problem of what advice to give and what

to do for those women, still in the active child-bearing age, who presents signs and findings of ovarian tumor. Occasionally pregnancy is complicated by ovarian tumor, thus creating an additional problem in management.

For the purposes of this discussion, only that type of ovarian pathology most commonly found in women up to the 40-year-old patient will be considered. It may be well to place before you, then, a brief outline of benign tumors in this age group:

- |                  |             |
|------------------|-------------|
| A. Cysts         | B. Cystoma  |
| 1. Physiological | 1. Serous   |
| a. Follicular    | cystadenoma |
| b. Luteal        | 2. Pseudo   |
| 1. Cyst          | mucinous    |
| 2. Hematoma      | cystadenoma |
| 3. Theca         | 3. Dermoid  |
| 2. Inflammatory  | C. Solid    |
| 3. Endometrial   | 1. Fibroma  |
| 4. Para-ovarian  | 2. Brenner  |

When a woman presents herself, complaining of pain in the lower abdomen, menstrual irregularities, backache or sterility, she ordinarily will be subjected to an adequate pelvic examination. It is then that the ovarian tumor is palpated and it is then that the decision must be made as to whether or not this patient is to be subjected to surgery. The conscientious physician will stop and review his findings and attempt to match them up with the history that he has previously developed.

Pain, as a presenting symptom of true ovarian tumor or cystoma, is rare and when present is usually associated with torsion of a pedicle, hemorrhage into a cyst or is related to endometriosis. Pain has so frequently

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been used as an indication for pelvic laparotomy that C. L. Randall<sup>1</sup>, Hofmeister and Gorthey<sup>2</sup> and others have pointed out that pain alone is seldom an indication for operation on the ovary.

Too many times the right ovary is attacked because of its proximity to a "not too sick appendix" in the hope that the pain about which the patient has complained will be relieved. Not too infrequently a patient will be subjected to surgery because of a previously diagnosed ovarian cyst, and when the abdomen is opened no cyst is to be found. It is then that the appendix is removed with the hope that the cause for the pain has been located. The statement of patients that "the doctor took out my appendix and a cyst off the right ovary" is still much too prevalent. Unfortunately the procedure too often provides a face-saving indication for what might have otherwise appeared to be an unnecessary laparotomy.

Hemorrhage from a ruptured corpus luteum will produce pain and this, together with the palpation of a small ovarian mass, may give the impression of a ruptured ectopic pregnancy. Pain and other symptoms of ruptured luteum cyst usually occur during the last ten days of the cycle and Pecman<sup>3</sup> believes this fact is a definite aid in diagnosis. The absence of shock as contrasted to ectopic and the absence of vaginal bleeding will also serve to distinguish between these two conditions. In the event that diagnosis is obscure, one is justified in laparotomy. If it is found that the bleeding is from a ruptured follicle or from a corpus luteum it is rarely necessary to do more than repair the rent with extremely fine suture. At most a resection of the cystic ovary is done.

#### *Pain from torsion*

Pain due to torsion is extreme in nature and occurs suddenly and dramatically as contrasted with the dull aching pain associated with other types of pelvic pathology. The white count is high and there is other evidence of an acute intraperitoneal involvement. Palpation of the tumor produces pain. Here laparotomy is indicated. Unfortunately the ovary is destroyed and rarely can any part of it be saved by resection. Torsion has been described as associated with all types of ovarian tumors, both solid and cystic, as

well as with the normal ovary. In dealing with this entity, the twisted pedicle should be clamped before the tumor is untwisted. This is a precaution against embolism.

Pain is commonly associated with cysts of an inflammatory nature and with endometriomas. Here the clinical picture must be evaluated and steps taken to remedy the situation according to the diagnosis reached. Menstrual irregularities associated with ovarian tumor are evidences of dysfunction and may require surgical intervention. History of oligomenorrhea together with presence of bilateral polycystic ovarian enlargement suggests the Stein Loventhal Syndrome. Occasionally menorrhagia and metrorrhagia exist together with enlarged cystic ovaries. Wedge resection is more often effective than hormonal treatment. Our experience has shown many instances of improvement of menstrual difficulties and pregnancies following surgery, in heretofore sterile women.

#### *Some cysts "disappear"*

If during the course of pelvic examination a cystic tumor measuring five to eight centimeters in diameter is found and the patient complains of little more than a dull ache or some vague menstrual irregularities, is it safe to adopt a waiting policy? Most gynecologists feel that continuous and frequent observations will reveal the true nature of the mass. In our own practice it is customary to have the patient return the following day after having taken an enema. She is then catheterized to be sure that the bladder is empty and the pelvis is carefully re-examined. In the obese woman or in the extremely "difficult to examine patient" hospitalization and anesthesia may be resorted to. If the enlargement is still found to be in the size range previously mentioned, the patient is re-examined after the next menstrual period or occasionally after two or three periods have elapsed. Frequently the cyst will have disappeared between these follow-up visits and many unjustifiable laparotomies will thus be avoided and the patient's financial resources will be conserved.

If growth of the tumor is recognized during this watchful waiting the chances are good that the cyst does not belong in the physiological group but rather among the

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cystomas. Persistence of a tumor five to six centimeters in diameter should be investigated surgically. It is recognized, also, that in a small group of patients who because of their constitutional make-up, dyspareunia or fear of cancer, procrastination is not advisable; surgery may be the procedure of choice. However, it is again emphasized that this is indeed a small group. We have frequently employed consultation in this type of patient and in doing so have improved our relationship with the patient as well as easing her mind.

Needless sacrifice of normal ovarian tissue is coming more and more to the attention of hospital tissue committees and as Lund<sup>1</sup> aptly phrases it, "The Prince Charming of the ovary will always be the clinician who refuses to compromise her unnecessarily."

#### *Consider all possibilities*

If having considered the relationship of the history and the pelvic findings, we become aware of the fact that we are dealing with a tumor that presents different characteristics than enumerated before, what then are the possibilities? Experience has shown that the most common ovarian tumor of the woman in the child-bearing age, aside from functional and endometrial cysts, will be the serous cystadenoma, the pseudomucinous cystadenoma and the dermoid cysts. Here the question is not so much whether or not to subject the patient to surgery but rather what to do after the abdomen is opened. It is here that a knowledge of the characteristics of the true cystoma is valuable. Exploration of the pelvis will immediately determine whether the tumor is unilateral or bilateral and whether it is to be suspected of malignancy or whether it is benign. By far the greatest incidence of benign cystomas will fall in the serous class. Unfortunately serous cystadenoma also has the highest potential of malignancy. The probably bilateral occurrences of benign cystomas tend to follow this trend as reported by C. L. Randall<sup>2</sup>:

Dermoid .....	10.4-11.9 per cent
Simple cystoma .....	6.6- 9.3 per cent
Serous cystadenoma .....	12.8-18.3 per cent
Pseudomucinous cystadenoma ....	7.2- 9.3 per cent

Bearing in mind the bilateral tendency of these neoplasms, the operator must not be content simply to remove the tumor but must carefully inspect the opposite ovary, bisecting it if necessary to prove or disprove the presence of tumor. At the Lincoln General Hospital, the incidences of bilateral occurrence was 24 per cent and peculiarly enough combinations of dermoid cyst and serous cystadenomas, or serous cystadenoma and pseudomucinous cystadenoma, were found in 10 per cent of cases of benign tumor operated upon.

Since pseudomucinous cysts carry a lower malignancy potential it is considered to be sound procedure, in the age group under discussion, to remove the affected ovary and, if a tumor is present in the opposite side, to effect resection of the involved area.

Occasionally some doubt will arise in the surgeon's mind as to whether or not a tumor is malignant. Some serous cystadenomata are exophytic and the appearance of cauliflower like excrescences over the surface of the tumor may cause concern. A handy pathologist is a boon in such a situation as the operator may safely await his verdict. If, however, the pathologist is not available, the operator, after bisecting the opposite ovary and finding nothing resembling tumor, may feel safe in leaving it. By the time that an involved ovary has developed a sizable tumor, if the opposite ovary shows no evidence of neoplasm, the chances are that it will not do so. Randall<sup>2</sup> is authority for the statement that in his experience, only 2 per cent demonstrated pathology developing in the other ovary and only 1 per cent of these developed malignancy.

Dermoid cysts, characterized by their oily sebaceous contents, have a distressing faculty for being bilateral in this age group. The fact that they do occur frequently in this younger age group, makes a more conservative approach necessary. It is our policy to carefully inspect both ovaries, and if resection is at all feasible we attempt it, reserving our opinion as to complete removal until the contemplated conservative procedure is proven not to be satisfactory. The opposite ovary may appear to be worthless because of multiple cysts but will remain as a functioning ovary if the cysts are needled.

During the past five years we have encountered ovarian cyst associated with pregnancy four times. Three of these were simple cysts and were dealt with following the third month of pregnancy. The fourth was a cyst large enough to completely fill the pelvis. When she came into our hands during the seventh month, it was not advisable to attempt operative removal. It was decided to wait until near term, deliver the patient by section and deal with the tumor at that time. The tumor was a dermoid about the size of a large grapefruit. The opposite ovary was normal in all respects and the patient made an uneventful recovery.

Finally, we come to the question of what to do about the ovaries when operating for benign disease in the woman approaching her menopause. Shall we remove both ovaries in the belief that in so doing we are reducing the patient's chances of cancer; or should we leave the ovaries, if they appear to be quite normal, and take that 1 per cent chance? It would seem well to adopt a "middle of the road policy" in attempting to solve the problem. It is commonly accepted that the woman who is within a year of her climacteric will probably do just as well without her ovaries as with them. It is in the slightly younger woman, 40 to 45, that the problem merits our best clinical judgment. The patient's own wishes in the matter must be thoroughly respected and it is well to talk the situation over quite frankly with both the patient and her husband prior to surgery. One can then ask to be given the opportunity to use one's best judgment after explaining that if it becomes necessary to remove both ovaries, comfort and freedom from distressing menopausal symptoms can be provided by substitution therapy.

It is perhaps unnecessary to point out the value that some women attach to their sex life or the fear that others have of becoming "old women." It is in this group that we should pay particular attention to prophylactic psychotherapy. In our own personal practice we can recall many women of 40 to 45 who by necessity were precipitated into surgical menopause and who have been able to carry on without difficulty. It is our rule of thumb, that ovarian tissue should be preserved if it is at all possible up until the age of 45 or 46. After that we are inclined to be less conservative during the course of surgical procedure for benign disease. After the age 48 or 49, the ovaries usually follow the uterus to the pathologists' domain.

### Conclusion

Ephraim McDowell quoted by Lund<sup>4</sup> said once: "I think my description clear enough to enable a good anatomist possessing the judgment requisite for a surgeon to operate with safety. I hope no other operator of any description ever attempts this. It is my ardent wish that this operation may remain to the mechanical surgeon, forever incomprehensive. Such has been the bane of science, intruding themselves into the ranks of the profession, with no other qualifications but boldness in undertaking, ignorance in their responsibility and indifference to the lives of their patients." The content and context of this statement is as true today as the day it was uttered. •

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duty to the country, but for a young man who has a medical education, this is prolonged. This is not the whole story, however. During the recent graduate's tour of military duty, he has an opportunity to pay off his most pressing debts and upon discharge he can get a U.S.V.A. Hospital residency which pays him more per annum than most of us made in our first few years of practice and, following his completion of his residency, he is reluctant to go into a sparsely settled community to begin practice. This is the problem we face. Our Committee on Medical Education has worked out at least in part what in my opinion is a good solution. You will read this report in your manual but in essence it provides for setting up a scholarship fund for loans to worthy and needy medical students which will be paid back at a very low interest rate and with the stipulation that they spend a certain number of years practicing in communities designated as in need of physicians. I most surely recommend this program for your consideration for the bene-

fits are not only in helping to supply a need in our state but also is helping many worthy students of medicine complete their studies which, without it, they would be unable to do.

The committee reports will be self-explanatory and will be examined by the Reference Committee and reported to you at another time. It is my opinion that these committees have made a thorough study of the material that they will present to you, and that the reports should be studied carefully by every member of the House of Delegates so that the course of our Association may be well charted for the year ahead.

I would like to admonish all of you to take a greater interest in your component societies and in your State Association. Every member of our Association has something worthwhile to contribute. The officers and committee chairmen for the following year must give their new president the same support I have received. We all wish them the greatest success. •

### Ad industry to join battle against polio

Local polio drives will get publicity assistance this fall from the Advertising Council, Inc. This voluntary group of advertisers and businessmen has taken on the vaccine campaign as one of its public service projects, mapping out a complete promotional program which utilizes newspapers, business papers, industrial publications, transportation and outdoor advertising, as well as radio and television. Local use of these materials will, in many cases, depend on whether or not a community vaccination drive has been planned or is in progress.

Using the theme, "Don't Press Your Luck—Get Your Three Polio Shots Now!", the materials make frank use of scare technics by contrasting the tragic effects of polio with the simplicity of getting Salk shots. Advisors for the campaign were the American Medical Association, the U. S. Public Health Service and the National Foundation for Infantile Paralysis.

### MDs to cooperate in "Farm-City Week"

The national committee for Farm-City Week, November 22-28, has extended a special invitation to all state and county medical societies to join in a program to "build better relationships between town and country neighbors." As in the past two years, this observance will be conducted nationally

and locally by hundreds of civic, industrial, agricultural, professional and youth organizations—all spearheaded and coordinated by Kiwanis International.

The AMA, which is represented on the Farm-City Board of Directors, this month (October) will send to all societies a series of suggestions for highlighting their urban and rural health services during the week. In most cases, local programs will be coordinated by community Kiwanis Clubs. Names of both regional and state Farm-City Week chairmen also will be sent to medical societies so that physicians may be represented on the local planning committees.

### Headaches cont. from 1021

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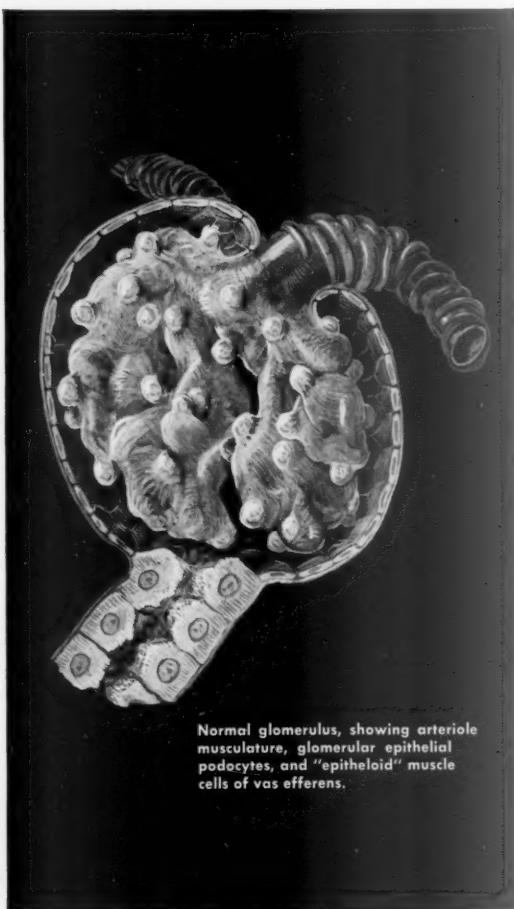
Settel<sup>1</sup> studied the effect of Rolicton in forty-seven patients and found no serious side effects. Assali, who observed the action of Rolicton in five patients with severe toxemia of pregnancy, states<sup>2</sup> that side actions are essentially nonexistent. Side actions of such low incidence, together with its diuretic efficacy, suggest a high order of usefulness for Rolicton.

One tablet of Rolicton, b.i.d., is usually adequate to maintain patients free of edema after the first day's dosage of four tablets. Some patients respond well to one tablet daily. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

1. Settel, E.: Rolicton® (Amisometradine), a New, Nonmercurial Diuretic, *Postgrad. Med.* 27:186 (Feb.) 1957.

2. Assali, N. S.: Personal communication, May 28, 1956.

SEARLE



Normal glomerulus, showing arteriole musculature, glomerular epithelial podocytes, and "epitheloid" muscle cells of vas efferens.





## THE WASHINGTON SCENE

*A monthly news summary from the nation's capital by the Washington Office of the A.M.A.*

In the last few years interest has built up in the problems of the older people—how they are to get their bills paid, how to spend their time constructively, what chronic medical conditions are causing them the most trouble. Innumerable national and local conferences have searched for ways to make life more satisfying and healthy for people entering old age, and committees are at work on the problem in thousands of communities.

In this favorable climate, when every device that might help the older citizens is being examined, there is being revived a scheme that met with no success at all when first proposed more than six years ago.

It is a plan for government-paid hospitalization under the Old Age and Survivors' Insurance system.

Here is the argument that is made for it:

People in old age generally have less income than when they were younger, but at the same

time they require more medical attention and hospital care. Neither voluntary nor commercial health insurance has been able to offer these people the protection they need. The only solution, sponsors of the plan say, is to get the federal government into the picture.

Opponents of the idea agree that older people are sick more often and generally don't have much money, but they disagree violently with the other arguments. They point out that slowly but surely insurance coverage is being extended to older people at a price they can afford to pay. Most important, hospitalization-at-65 critics maintain that a system like this is in effect national compulsory health insurance under Social Security.

Early this year, Reps. Emanuel Celler (D., N.Y.) and John Dingell (D., Mich.) introduced bills on this subject. They would allow sixty days a year free hospitalization for OASI-covered men 65 and over and women 62 and over. Rep. Kenneth A. Roberts (D., Ala.) offered a similar bill.

Just before the session ended two developments occurred that are evidence the proponents of this system of hospitalization are getting ready to make a real fight for it next year.

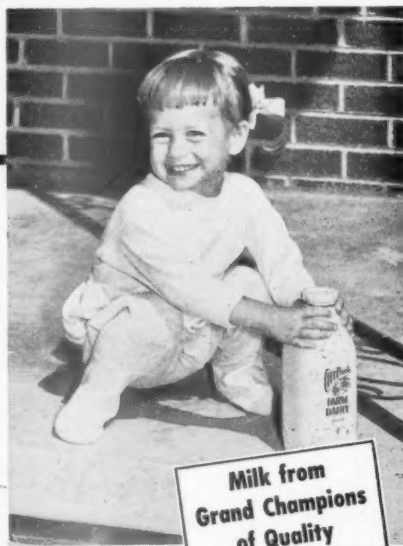
First, Rep. Aime J. Forand (D., R.I.) presented a bill that would make extensive liberalizations in the Social Security program, including creation of a hospitalization that would give free surgical service to the aged program. Some na-

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## Organization cont. from 1050

was born in Shellsburg, Iowa, on March 8, 1877. He received an A.B. degree from the University of Nebraska in 1897 and his M.D. degree from Northwestern University Medical School in 1900.

Dr. Packard was licensed to practice in Montana in 1902 and was engaged in general practice in Montana until his recent illness. He was a member of the Silver Bow County Medical Society, this Association and the American Medical Association.

## Health notes

Declining mortality from tuberculosis since 1900 has had its greatest impact among young adults (ages 15-44) in the peak income and child-bearing years, according to Health Information Foundation. The highest mortality from this disease now occurs in the upper age grades among those over 65.

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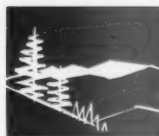
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**COLORADO**

## Obituaries

**RICHARD H. MELLEN, M.D.**

Richard H. Mellen, orthopedic surgeon, Colorado Springs, died on June 22, 1957. Dr. Mellen was born on October 23, 1909, in Middlebury, Vermont. He attended Amherst College and Harvard Medical School from which he graduated in 1935. He served an internship and residency at Bellevue Hospital in New York City from July, 1935, to January, 1938. He became a member of the American Medical Association on August 22, 1946. He was licensed in Colorado on July 2, 1946, and was elected to the Colorado State Medical Society on February 5, 1947.

**C. C. FUSON, M.D.**

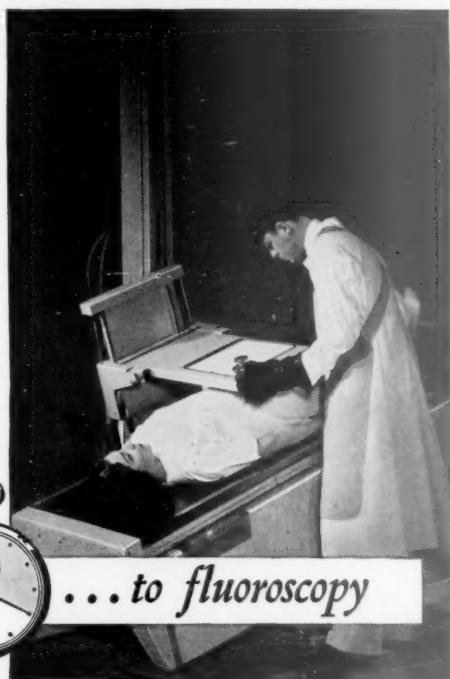
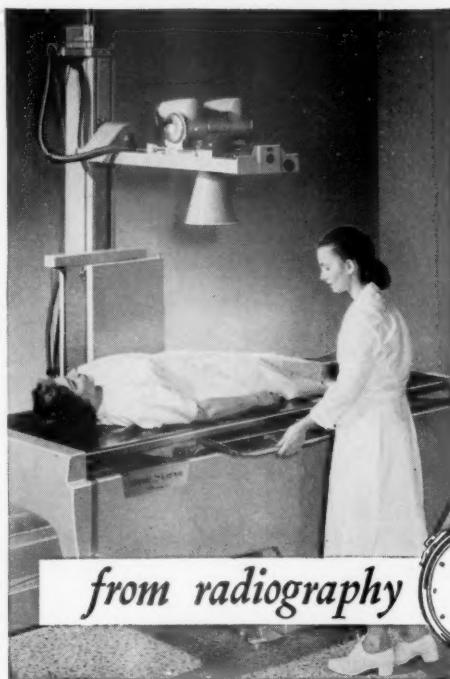
Dr. C. C. Fuson, Milliken, Colorado, died on July 16, 1957. He was born in 1878 and graduated from the Colorado School of Medicine, receiving his degree in 1910. He became a member of the AMA in 1929. He was made a Life Emeritus member of the Colorado State Medical Society on December 10, 1954.

**MARGARET LONG, M.D.**

Dr. Margaret Long, retired Denver physician and author, died on August 29, 1957. She was born in Boston, and came to Colorado in 1905 to recover from tuberculosis, and became one of the state's leading fighters against the disease. She helped found Sands House Sanatorium in 1914 and served on its Board of Directors for many years. She also did research work in tuberculosis at several Denver hospitals. She was a graduate of Smith College, Northampton, Mass., and Johns Hopkins Medical School.

Following her retirement from medicine, she became an authority on western history and received a citation from the Oregon Trail Memorial Association in recognition of distinguished service to the cause of preserving our Western trails and the traditions of our American pioneers. Other books by her were "The Shadow of the Arrow," "The Enchanted Desert," "The Smoky Hill Trail," and "Santa Fe Trail." For the past two years she had been working on the journal of her father, John D. Long, three-time governor of Massachusetts and Secretary of the Navy under President McKinley.

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**NEW MEXICO**

### Obituary

CHARLES E. LONG, M.D.

Charles E. Long, M.D., 53, of Socorro, New Mexico, died of a coronary on August 21, 1957.

Dr. Long was born on November 23, 1903, in Leipsic, Ohio. He was graduated from the University of Colorado Medical School in 1943 and practiced in the community of Paonia, Colorado, until 1950, at which time he moved to Socorro, New Mexico, where he established a general practice. He was a member of the New Mexico Medical Society and the American Academy of General Practice.

He is survived by his widow, Mrs. Leona Long of Socorro, and two daughters, Geraldine Long of Socorro and Mrs. Lorraine Duston, Detroit, Michigan.



**MEDICAL  
SCHOOL NOTES**

### U. S. to observe "Medical Education Week" in April

The third annual Medical Education Week, nationwide tribute to the progress of American medical schools, will be promoted during the fourth week in April by U. S. medical schools and the medical profession.

April 20-26 will be devoted to an all-out effort to create a greater understanding among the public of both the achievements and the problems of medical schools. Each of the sponsoring organizations—the American Medical Association, the Student American Medical Association, the Woman's Auxiliary to the AMA, the Association of American Medical Colleges, the American Medical Education Foundation, and the National Fund for Medical Education—is asking its membership to reserve this week for community and statewide salutes to area medical schools.

Local and state programs will be reinforced by national publicity through network television and radio, newspaper syndicates, and magazines. In addition, the sponsors will send promotional aids to their state and county officers to help in local observances.

During the 1957 Medical Education Week, medical societies in thirty-two states and woman's auxiliaries in forty-two states planned various activities, and their past successes are expected to lead to an even more widespread acknowledgment of the achievements of medical schools in 1958.

ROCKY MOUNTAIN MEDICAL JOURNAL



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## NATIONAL AFFAIRS

### Hotel reservations for the annual meeting

San Francisco, June 23-27, 1958

For the convenience and protection of members of the American Medical Association, exhibitors, and guests, there will appear in the advertising section of the Journal as early as January, 1958, a list of San Francisco hotels, convention rates, and a room reservation form. The Housing Bureau has been instructed to give this form preference in the allocation of rooms that are reserved under contract with the San Francisco hotels, the Convention Bureau, and the American Medical Association.

Physicians attending the several pre-AMA conventions (which are held during the prior week) are also expected to use this form to secure accommodations for the period of these respective pre-AMA meetings.

### AMA lends hand to medical assistants groups

A new how-to-do-it organizational manual for medical assistants will be introduced at the second national convention of the American Association of Medical Assistants in San Francisco October 4-6. Edited by leaders in assistants groups around the country, the manual is being published by the AMA's Public Relations Department. The manual, titled "Take-off Techniques," discusses such or-

ganizational processes as securing medical society cooperation, planning educational programs and keeping members informed.

This is the second publication for medical assistants the AMA has prepared this fall. A new medical assistants packet, outlining medical assistants' organizational aims and activities, was completed recently and is available on request to medical societies and assistants groups.

Women from assistants groups in some twenty states are expected to attend the San Francisco session of AAMA. The San Francisco Medical Society, the California Medical Association and the AMA will co-host a reception Friday evening, October 40, for AAMA members.

### AMA prepares liability kits

For use in claims prevention and claims review programs, the American Medical Association's Law Department is making available to each state medical society a packet of materials dealing with "medical professional liability." The kit will contain reprints from the Journal of the AMA "Medicine and the Law" section dealing with such things as statutes of limitation, court decisions and "res ipsa loquitur." Also enclosed will be the results of an opinion survey and a report on medical professional liability case histories—keyed to each state. Distribution is slated for October 1.

### AMA plans 11th clinical meeting

The birthplace of American independence—Philadelphia—will be the scene of the American Medical Association's 11th Clinical Meeting December 3-6. Center of activities will be Convention Hall where scientific exhibits, color television, motion pictures, technical exhibits and scientific lectures will be presented "under one roof." Headquarters for the House of Delegates will be the Bellevue-Stratford Hotel.

Highlights of the three-and-a-half day convention geared especially for the nation's family doctors include: (1) Special transatlantic conference between distinguished physicians in London and Philadelphia on "Advances in Chemotherapy of Cancer" via two-way telephone at 3 p.m. EST Wednesday; (2) complete color television schedule of surgical demonstrations emanating from Lankenau Hospital; (3) motion picture program daily plus a special session Tuesday evening; (4) exhibits featuring a well-rounded program and special displays on the history of medicine in the Philadelphia area, fractures and manikin demonstrations on problems of delivery; (5) panel dis-

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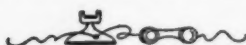
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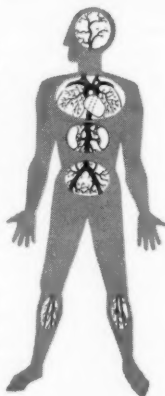
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<sup>2</sup> Clotting times are not suggested from the standpoint of avoiding danger in either the hospitalized or ambulatory patient when Lipo-Hepin dosage schedule and injection technique is used. Clotting times may be taken during initial therapy to insure adequate effect. (Literature available on request).



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## The book corner cont. from 1074

**The American Fluoridation Experiment:** By F. B. Exner, M.D., and G. L. Waldbott, M.D. N. Y., David-Adair, 1957. Price: \$3.75.

This is one of the most peculiar books ever to be offered for serious consideration, either by scientists or lay persons. Both of the authors are of accepted standing in the medical profession.

In the present instance this book plunges into a subject that is only vaguely concerned with the special practice of either of the authors.

To write on the almost innumerable expressions of dental fluorosis it could reasonably be expected that an author should have lived with it day in and day out, as we have in Colorado; and to be familiar with its manifestations and results, both dental and as related to bodily health. Nowhere in this book does one find evidence that either author has ever had more than a limited contact with it. Neither does it appear that either author has ever made a detailed, or even a cursory, study of any community in which dental fluorosis is endemic.

Whence, then, do the voluminous data in the book derive, if not from the printed word and the author's imaginary conjectures?

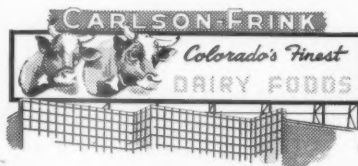
There is hardly a paragraph in the book with which informed opinion could agree.

Even the title is purposely misleading. Any phenomenon of nature under which man has thrived for generations cannot be called an "ex-

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periment." The book is in large part a tirade against the functions and personnel of the United States Public Health Service. Its studies are rejected, its findings repudiated, and its ethics made to seem questionable. The attitude of the American Medical Association toward water fluoridation is, according to this book, hardly less reprehensible.

To the layman, reading this book, this tirade against certain persons in the United States Public Health Service, and the attempted disqualification of their scientific conclusions could hardly illuminate his knowledge of the subject.

Despite the meticulously conducted studies and observations in the water-fluoridation-test communities, and the accurately reported results in

dental-carries-reduction, the book doubts any "net" improvement. One might inquire just what kind of evidence would be accepted by the author!

Evidence of equal conclusiveness, in support of the allegations of the authors, is singularly lacking in the book.

Because of its strong support and advocacy of fluoridation, the American Dental Association (as with organizations previously named) is similarly castigated. The reader can hardly avoid the implication that there is some mysterious difference in effect between the action of "natural" as opposed to fluoride mechanically added to a water supply.

This concept has been overturned time and time again, by an almost unanimous opinion of chemists. To uphold any such difference would argue that the fluoride ion possesses a dual behavior: one when emanating from a "natural" source, and the other when released from a "manufactured" compound.

One particularly technical issue deserves comment: Medical and dental practitioners in Colorado are familiar with the brown discoloration occurring on the teeth of children native to certain communities in the state. It is generally understood that this is due to an excess of fluoride in the water. Anything beyond 1.5 fluoride per million parts of water is an "excess" from the dental standpoint.

Studies made during the last decade by the United States Public Health Service established

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that such objectionable stain will not occur from water containing not more than 1.0 part per million fluoride.

One of the authors attempted to show, in a published report, that a pronounced stain had been produced in two persons who, it was alleged, were raised on Denver South Platte water—which, consistently, has contained 1.0 p.p.m. fluoride.

In a court of law in another state, something over a year ago, it was determined that these two persons had acquired the stain, not in Denver, but in other communities where the water held an "excess of flouride."

This episode is mentioned here only because the book stubbornly retains this "evidence," despite its rejection by a court of law.

A considerable part of this book is given to a description of cases of "poisoning" from the use of low-fluoride water: almost every conceivable symptom is mentioned, and prompt miraculous "cures" recorded following discontinuance of such water!

The inference is plain, that until these various symptoms of pathology were set forth in the book,

they had passed completely unnoticed by medical practice! This, indeed, will be interesting reading by medical practitioners—in Colorado, in particular!

Inasmuch as, according to the book, the symptoms of fluoride poisoning may not appear until after fifty to sixty years, Colorado Springs, for instance, is facing a disastrous future. Toward the end of the book there appears a list of communities over the country that, once having adopted fluoridation, have, for various reasons, abandoned it; some after a considerable period of use. (This list, by the way, has several errors.)

Had it not been that these communities were flooded with the same vicious and misleading material (as so generously set forth in the book), these communities would be receiving the benefits of fluoridation. A victorious achievement, indeed! But, what of the victims: the children—the future adults!

The whole purpose of this book is to maliciously discredit fluoridation.

Frederick S. McKay, D.D.S., Sc.D.,  
Colorado Springs, Colorado.

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when anxiety and tension "erupts" in the G. I. tract...

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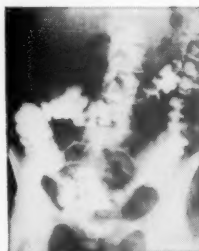
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**A**NXIETY is not always something undesirable or bad. It is often necessary. Being one of the feeling of insecurity in the presence of danger, it is closely related to fear. And while fear generally is a very negative and harmful thing in our na-

## *The Positive Aspects Of Anxiety*

tures, it is also true that many fears and anxieties are normal. We refer to realistic anxiety as distinguished from neurotic anxiety. The first is a proportionate reaction to external or real threats in the world about us, while the second springs from conflicts within ourselves and often requires professional attention. Through realistic anxiety, we are quite properly concerned by threats and problems which could overpower or destroy us.

The instinct of self-preservation, or timidity in the presence of the unknown, is a fine thing, making it possible for us to do our work in the world. In the history of the race, the instinct to run was necessary for self-preservation. The same fear today is a blessing, for if we were not afraid in crossing the street, most of us would not live to reach the other side. Any fear which produces in us a healthy caution is nothing but a good fear. The impulse to flee or hide when afraid is nature's way of protecting us. We then have a chance to catch our breath and plan the next move, then to face the danger, to fight and overcome it. Such fear is then only a temporary state of mind and is nothing to be ashamed of. It becomes a definite protection to preserve us. It is a good thing if it keeps its rightful place. It saves us, on countless occasions, from physical harm, from making a wrong choice. It gives us common sense, caution, time to plan the next step. It makes us want to do something. Like physical pain, anxiety alerts us to do something about a threat or danger that requires our attention. So long as fear does not rule us, but is only temporary, we should be glad for it.

Worry is one of the earmarks of civiliza-

tion. It is not abnormal to worry about things which threaten our safety or our ideals or our plans. It is because of this capacity to see ahead, to anticipate certain dangers and to avoid them, that man has achieved what he has.

With regard to so many health efforts being aimed at the elimination of stress and the associated anxiety, we are reminded by Dr. John C. Whitehorn, Chief of the Department of Psychiatry at Johns Hopkins University, that "life without struggle and effort—without stress and anxiety—can be a very stale and meaningless existence."

It is also interesting to note the change of attitude toward fear in our military services. Until World War II, fear was regarded as cowardly and its repression as courageous. The shame and guilt experienced by soldiers during World War I when they felt fear created many neurotics and impaired the efficiency of some in action. But in World War II, fear was recognized as a normal reaction to danger; this helped to bolster morale and to save lives.

Furthermore, some fears are actually related to love, the most vital and positive of all emotions. Fear, for example, arises when there is danger facing something or someone we love—as our reputation, our fortune, our children. The latter is called filial fear; we dread to hurt our loved ones. The negative dread may then turn to the positive longing or yearning to protect and help.

So it is with anxiety, which is simply a lesser gradation of fear. The conclusion is that anxiety is not always bad or unhealthy. To be lacking in anxiety in the face of a threatening situation may sometimes be a symptom of a serious mental disorder rather than a sign of mental health. Anxiety of this type should not be narcotized, ignored, suppressed, denied, rationalized or avoided. It should be recognized and acted upon, as it is constructive in helping us find our way through life.

Paul A. Draper

these and many other factors, I believe the Colorado State Medical Society can make itself felt in stemming the tide of rising costs. We are no better or no worse than our fellow-men in this spreading philosophy of prodigality but we must be better.

#### *Free choice*

It was with considerable trepidation that the issue of free choice was presented to the House of Delegates last year. It was most gratifying to see the principle endorsed without dissent. Our Board of Councilors picked up the ball and did a magnificent job of composing a guide which to my mind leaves no room for doubt as to whether a given situation of practice conforms or not.

Again, it was not with supreme confidence that the Colorado resolution was taken to the June meeting of the House of Delegates of the AMA. True, the resolution was not adopted, but may I convey to you that it was not repudiated. The rallying around the standard of the Principle of Free Choice was a thrilling thing to see. The New York delegation came instructed to vote for it. Pennsylvania, Illinois, Mississippi, Utah, to mention only a few, were very busily stumping for it. The resolution was not adopted because it was deemed injudicious to impose such a position from the top down where varying state laws would be involved. And, from another angle, I think it has been much wiser that the Principle be adopted by each state within the structure of its laws. This also serves to refute any idea of rule from the top down. But, believe me, the elected representatives of the component, state and territorial societies of the AMA are enthusiastically and overwhelmingly in favor of the Principle of Free Choice.

Now, lest we become intoxicated with this heady draught, let us consider a few sobering thoughts. Not all of our own members are persuaded to the validity of the Free Choice Principle. Tangible evidence of this is before us, in the fact that situations vacated by many of our members soon after our Society had acted, have been filled by members of our Society—in many instances filled by men whom I would have sworn would never have violated a principle endorsed by their colleagues, even under pain-

ful duress. I cannot understand this. Another sobering thought which we must all be very alert to is that the very sanctity of the doctor-patient relationship brought about by free choice places a heavy burden on the physician. Once the patient has chosen him and he has accepted the patient, he must serve that patient with all of his ability. True, a physician must have some rest and recreation. He has family responsibilities, social and community responsibilities, must keep abreast of scientific, professional and economic matters, but these must be secondary to fulfilling his reasonable obligations to his patients. Unless we show our devotion to the doctor-patient relationship operating under the principle of free choice, how can we expect others to take it seriously?

Now, as to the functioning of the Society. May I plead with all of you to divest yourselves of all prejudices, animosities and suspicions and direct your entire energies to the work to be done. These frailties have been responsible for more frustration of accomplishment than any other factor, in my opinion. I believe that fully one-half of the Presidents of this Society in the past ten years have ended their year with deep scars of frustration, bitterness and disillusionment, after having given their best. Much effort becomes tedious, odious and laborious because of these factors. Forget personalities. Accept or reject proposals on their merit. Contribute to the solution, and not to the problem. Many men have refused to serve the Society because they were unwilling to subject themselves to unpleasantness. Some such factors have played a part in the failure, so far, of the Empire Casualty to get the needed support to make it function. And I wish here and now to urge each of you to put his money on the line before this Annual Session ends.

#### *Component Society report*

One innovation which I shall attempt is in regard to the official visits of the officers to the component Societies. And this will be to institute a two-way report: One from the local Society to the visiting officers. The other from the visiting officers to the component Society. A form will be mailed to each Society to be filled out prior to the official



visit, setting forth the manner in which the local Society is handling such things as emergency medical service, indigent care, public health, with school health, sanitation, etc., medical spokesmen and publicity, State Society liaison through the local representatives to the House of Delegates, the Blue Shield Fee Schedule Advisory Committee, the Legislative Committee and any other state committees on which that Society is represented. If requested, the visiting delegation will meet with the local officers before the regular meeting to deal with any special problems. It is hoped that this will make the official visit more meaningful and should result in more passing around of good ideas.

I have given much time and thought and sought much advice in my committee appointments, retaining enough previous members to insure continuity but trying to give

a number of new men an opportunity to work.

One further matter has recurred to me frequently, since some months ago when a psychiatrist friend said: "You know, alcoholism is the biggest medical problem today." And after discussing this a few minutes, he said, "And we physicians set a mighty poor example in regard to alcohol." With which I have to agree. Had I given this talk yesterday I would have thought it most effective. Your conduct last night was exemplary. I just throw this out to you in the hope that maybe someone will be moved to attack it with the same zeal that Horace Campbell has had for automotive safety, or Ralph Stuck has shown for water pollution.

Now enjoy your speakers, enjoy fun and enjoy your work, so that we may say together, when it is over: "It has been a good year." •

## Fatal Doriden intoxication

C. Pardue Bunch, M.D., Artesia, New Mexico

*The newer non-barbiturate sedatives have been used successfully in suicide attempts.*

*One such case is here presented.*

*More recent evidence at the University of Colorado Medical Center indicates that this particular product will dialize out of the body successfully on the "artificial kidney" providing us with a life-saving tool which worked but poorly with the barbiturates.*

SINCE THE INTRODUCTION of Doriden (alpha-ethyl alpha-phenyl glutarimide, Ciba) in 1954, there has been little in the literature about instances of intoxication and little has

been learned of the manner in which overdosage can produce death. Hence this case is being reported.

The usual dose of Doriden as hypnotic is 0.5 gm. In therapeutic doses an effect is noticed in one-half hour, reaches a peak in two to three hours, and lasts five to six hours<sup>1</sup>. In humans, 24 0.5 gram tablets can be expected to produce coma of approximately forty-eight hours' duration and dosage of 36 tablets, coma of seventy-two hours' duration. Recovery or death from this large dose will depend on promptness and thoroughness of gastric lavage, adequacy of airway, suction, and supportive measures<sup>2</sup>. A colorimetric test which may be applied to the urine of patients in coma has been devised to aid in diagnosis of the presence and quantity of Doriden excreted<sup>3</sup>.

### REVIEW OF REPORTED CASES

A 39-year-old white woman who took 20

0.5 gram tablets and survived was reported by Blakey, Barringer and Billig<sup>4</sup>. Gastric lavage was performed thirty minutes following loss of consciousness. Marked hypotension (which responded to Neo-Synephrin by intravenous drip), rapid respiration and pulse were the outstanding features. Recovery from coma occurred after twenty-three hours. Pupillary and deep reflexes never completely disappeared.

A 38-year-old man who took 10 0.5 gram tablets was reported by Burnstein<sup>5</sup>. This man was flushed, had thick speech and impairment in coordination, but otherwise showed no abnormalities. Four hours following administration of caffeine and Benzedrine he had recovered.

A psychotic woman who took 10 0.5 gram tablets was reported by Eidelman<sup>6</sup>. No gastric lavage was reported which may account for her coma lasting for thirty-six hours. Her hypotension responded to Wyamine. Respirations ranged from 44 to 56 and pulse from 116-144. She had tonic spasms of various parts of the body before finally recovering.

#### SPECIAL CASE REPORT

A 27-year-old, 126-pound housewife who had been unstable for several years took 36 0.5 gram tablets of Doriden June 7, 1956, in a suicidal attempt. She was found unconscious approximately one hour after taking the tablets and was brought to Artesia General Hospital. Gastric lavage with one and one-half gallons of water containing universal antidote was performed about ninety minutes after ingestion of the tablets. She was completely flaccid, with dilated pupils that did not respond to light. No deep reflexes could be elicited. Cyanosis was evident at first but this soon cleared and the patient appeared to be in a quiet

sleep except that respirations ranged from 20 to 50 and pulse from 80 to 150. Blood pressure on admission was 100/60. No other abnormalities were found on physical examination.

TABLE 1

Hours after Admission	Metrazol i.m.	Caffeine Sod. Benzoate	Coramine i.v.	Aminophylline i.v.
0	1 cc. 1 cc.	7½ gr. I. M.		
6	5 cc.			7½ gr.
12	3 cc.		4.5 cc.	
18	3 cc. 3 cc. 6 cc.	7½ gr. I. V.		
24		7½ gr. I. V.	2.5 cc.	4½ gr.
30			2.0 cc.	3 gr.
36			4.5 cc. 4.5 cc.	
42			4.0 cc.	3¾ gr.
48			4.0 cc.	
Totals	22 cc.	22½ gr.	26.0 cc.	18¾ gr.

The patient's course in the hospital is summarized in Tables 1 and 2. Salient observations, as noted in the other cases, were marked hypotension, rapid, shallow respirations and rapid pulse. Hypotension responded to Levophed given by slow intravenous drip over a ten to twelve-hour period. An endotracheal tube provided a better airway and a means for removing the secretions that the patient could not expel due to

TABLE 2

Hours after admission	Levephed (0.4% solution) i.v.		Intake i.v.	Output	Remarks
0					Gastric lavage
6					Enema
12	6 cc.	500 cc.	10% glucose in water		Trendelenberg position started
18	100 cc.	500 cc.	10% glucose in water		Oxygen and suction air-way inserted, indwelling catheter, enema, (Harris flush)
24	100 cc.	1000 cc.	5% glucose in saline	1250 cc.	
30			1000 cc. 10% glucose in water		Tracheal intubation
36			500 cc. lactate Ringer's solution		
42					Aspirin supp. for fever
48		500 cc.	5% glucose in saline	2400 cc.	Facial edema and papilledema, cortisone 50 mgm I.M., aspirin supp., spinal tap, convulsions
51 hr. totals	206 cc.	4000 cc.		3650 cc.	Death

absence of the cough reflex. Respiratory rate was less rapid after this tube was inserted.

In addition to gastric lavage, two enemas were administered. Trendelenberg position with frequent turning, penicillin and streptomycin 2 cc. intramuscularly every twelve hours, indwelling catheter, oxygen by mask and frequent use of suction were used. Laboratory studies including complete blood count, urinalysis, Kline test, BUN, and  $\text{CO}_2$  combining power were all normal.

Forty-eight hours after admission the patient had failed to respond from her deep coma despite large doses of Metrazol, caffeine and Coramine. Fever rose to 104 rectally. Facial edema and marked papilledema developed. Spinal tap was performed with the hope of relieving the pressure and to learn the status of the cerebrospinal fluid. Pressure was found to be 340 mm. water. Fluid was clear, containing 28 white blood cells per cubic mm., and 25 mgm. per cent of protein. Ten minutes following removal of 3 cc. of fluid the patient's eyelids flickered, there were several generalized convulsive movements and cyanosis followed by death, despite attempts to open the airway and to stimulate the patient with intracardiac Coramine. A thick mucus plug was found at the end of the endo-tracheal tube when it was removed.

Postmortem examination: Positive gross findings were edema of the brain without hemorrhage or exudate. The lower part of the cerebellum and cone showed indentation in the last two centimeters consistent with marked cerebral edema. Also, there was plugging of the bronchial tree on the left with thick dry mucus, and congestion of both lungs. Large organized clot in the right ventricle. Left hydrosalpinx.

Pertinent microscopic findings as reported by Dr. A. S. Blauw, pathologist of Eastern N. M. Medical Centre, Roswell, N. M., were as follows:

Liver: Capsule smooth. Lobular architecture preserved. Hepatic cells showed no unusual changes. Slight to moderate dilatation of the central veins.

Lungs: Alveolar septa thickened by engorged capillaries. In many place alveoli were filled with pink staining fluid. In some areas there was additional outpouring of red blood cells.

Spleen: Sections of the spleen showed a thin capsule and engorgement of the red pulp with

erythrocytes. Malpighian follicles, compressed. Lymphoid tissue, sparse.

Kidneys: Thick capsule, with well-preserved proximal and distal convoluted tubules. Glomerular tufts moderately congested; however, there was neither fluid nor blood in Bowman's capsule.

Central nervous system: Chromatolysis of the neurones within the myelitic layers of the cerebral cortex. Nuclei, eccentric. Loss of Nissl substance. Edema around neurones and vessels; however, no hemorrhage noted. Similar changes found in the pons and medulla.

Diagnoses: Passive congestion and edema of the lungs. Acute passive congestion of the liver. Acute congestion of the spleen. Intracerebral edema with chromatolysis of neurones.

### Summary

A fatal case of Doriden intoxication in a 27-year-old woman is reported. Ingestion of 18 grams caused hypotension, rapid pulse and respiration, and deep coma with absence of all reflexes. Large doses of Metrazol, caffeine, Coramine and Aminophylline failed to induce response. Death occurred fifty-two hours after ingestion of the Doriden and ten minutes after spinal tap, with appearance of eyelid flickering, convulsions, cyanosis and discovery of a mucus plug obstructing an endotracheal tube. Autopsy findings were cerebral edema, bronchial obstruction and pulmonary congestion. The doctors attending the patient concluded that she died a respiratory death due to: 1. cerebral edema; 2. pulmonary edema, and 3. bronchial obstruction (terminal). •

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## Arrange cancer film bookings through AMA

Hope in the thought that 75,000 lives in America need not be lost needlessly to cancer each year is the theme of a dramatic educational film recently added to the AMA Film Library. Titled "The Other City," the film stresses the encouraging fact that doctors currently are saving one in three patients as compared with a previous one-in-four ratio. Setting of the film is Racine, Wisconsin. Four basic thoughts are developed: (1)

Racine empty and lifeless; (2) a symbolic representation of what cancer is; (3) how the 75,000 inhabitants of this token city could have helped save themselves, and (4) Racine alive and bustling.

Produced by the American Cancer Society, the 16-mm. color film runs 22 minutes and 30 seconds. It is suitable for showings on local television as well as for church, club and school gatherings. Medical societies may book the film through the AMA Film Library.

# Orientation to the geriatric problem

C. H. Hardin Branch, M.D.,\* Salt Lake City

*More people are now living to face geriatric problems. This article increases our insight into the vital mental and emotional elements of health among the elder citizens.*

"SENIOR CITIZENS"—our euphemism for persons aged 65 and over—now constitute 8.4 per cent of our population (as of July 1, 1955), with the expectation that between 1980 and 2000 this percentage will double. Or, as a rather more pathetic index, indicating both the magnitude of the problem and society's failure to deal with it, we may study the state hospital admission rate of patients in this age group. While the number of senior citizens in the general population has doubled (4.1 per cent in 1900), the hospital admission rate for this same group has multiplied by three or four times. Some of this is due to a general increase in life expectancy—from 48.23 years in 1900 to 67.4 years in 1954 (these figures are for white males)—and some is due to our cultural inability to find any intrinsic value in old age. In many cultures the patriarch is a necessary encyclopedia, a living guarantee that the accumulated wisdom of the group will be passed on to succeeding generations. But in our own fast-moving time, the practical knowledge of even thirty years ago is of little use today, and we have better filing systems than the memories of men. This is one of the factors which forces retirement on vigorous and productive men, which relegates grandparents to

jobs as unpaid baby-sitters and—in more serious situations—labels some older people as mentally ill and admits them to psychiatric hospitals.

## *End-of-the-trail attitude*

But another part of the problem lies in the general attitude that the older person is not only useless but also hopelessly, irremediably deteriorating. In spite of our knowledge to the contrary, we speak of "senile changes" and "cerebral arteriosclerosis" as though these were end-of-the-road facts, entitling the patient to treatment "as something of a transient at the end of his journey, warranting good care but not much more."<sup>1</sup>

Socially this may be pardonable, since society has thus far failed to find other solutions, and the state mental hospital is usually humane and reasonably comfortable. The physician, however, whose training has demanded a constant search for optimum treatment methods and whose ethical principles contemptuously reject complacent acceptance of half-measures and temporizing—the physician cannot be comfortable with this relegation of the older person to the one-way slide to oblivion. Clinical experience and present-day knowledge of pathology both argue against accepting "senility" or "cerebral arteriosclerosis" as inevitably indicating incapacitating deterioration.

## *Lack of correlation to pathology*

For one thing, there is no demonstrable quantitative relationship between amount of intracranial pathology found at autopsy and amount of personality change observed in life. No one can have failed to wonder why one individual, hale, vigorous and alert until his death, should show a considerable degree of senile or atheromatous changes, while his

\*Professor and Head, Department of Psychiatry, College of Medicine, University of Utah.

for a spastic gut \*



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neighbor's brain contains little structural change to explain the querulousness, suspiciousness, disregard for social amenities and forgetfulness which rendered his later years so unhappy and lonely.

Also, if there is a quantitative cause-and-effect relationship between organic changes in the brain and the development of mental symptoms, we would expect a slowly developing organic process to be paralleled by the gradual accumulation of a personality and intelligence deficit. Clinical observation does not always substantiate this. Following a shock—death of a loved one, or change in a job, or disappointment or sometimes (tragically) even retirement—and even at times without apparent external cause, a person will have an acute onset of a state comprising confusion, disorientation, depression, hypochondriasis, memory changes, etc. In these not uncommon instances where some, if not all, of these symptoms continue to produce total and permanent incapacity, one is forced to the conclusion that, however important may be the organic changes in the brain, the clinical evidences of the illness—in fact, the very illness itself—is produced by a disturbance of balance from factors which have little to do with senile plaques, or disorders in circulation or sclerosis of arteries.

An important aspect of the problem is the basic personality structure of the patient. The individual with broad interests, many human contacts, diversified activities consistent with his physical abilities—this sort of person can tolerate elimination of part of his life better than can the person whose life is centered on a more circumscribed area.

#### *Widows a special problem*

Widowhood is a specially and increasingly important aspect of this same problem, with women outnumbering men by one and one-quarter million (July 1, 1955). With life expectancy of women four to six years greater than that of men, we can expect to find more and more women having difficulty in adjusting themselves to lives in which they are merely constricted and lonely individuals. If they have never learned to be anything but wives and mothers, they can expect to find little worthwhile in a life situation in which these roles are no longer appropriate.

The physician must accept the responsi-

bility for handling most of these patients, directly by providing proper medical care and indirectly by counsel to the patient and his family. This is not a psychiatric problem, at least in most instances. In fact, the appearance of the psychiatrist on the scene is probably entirely fortuitous, one result of the cultural pattern of using psychiatric hospitals to house persons for whom society has otherwise failed to provide.

#### *Facets of the geriatric problem*

In a broad sense, the problem of geriatrics is a social one, embracing the following areas:

1. General principles of mental hygiene: adequate recreational and educational activities, diversification of interests, etc.

2. Realistic approach to the problems of retirement: use of functional rather than chronologic age as a basis for retirement, careful appraisal and utilization of the abilities of the older individual, concrete employment plans to make the most of man-power and woman-power at all ages, etc.

3. Broad-based plans for taking care of older people who, while not requiring hospital care, need some day-by-day supervision, encouragement, protection and general management.

4. A general medical and psychiatric approach which maintains the individual at his optimum level.

On the medical side, the geriatrician is leading the way, but every physician must be prepared to do his share. This often requires a reorientation of attitude, for most physicians strive for "cures" even though they pay lip service to the idea that a complete cure is seldom possible. In the older individual, this treatment goal must be changed to a program which aims at optimum functioning for that individual rather than at actual eradication of pathology.

A multiple approach is usually indicated, with careful attention to diet and rest and recreation habits, sensible medication for existing illness and such environmental suggestions as may be applicable. Specific medications may include pipradol (Meratran) as well as amobarbital and amphetamine (Dexamyl), and nicotinic acid and metrazol (Nicotol) combination. Subshock insulin may be useful for the patient with weight loss and a failing appetite. A high blood sugar level

may be useful in combating confusional states, according to Helps<sup>2</sup>, and electroshock therapy may be needed in severe depression.

#### *Psychiatrist's job*

The psychiatrist may be most useful in pointing out specific psychologic needs of the patient and in handling those therapies (electroshock, for example) which properly belong in his field. He may also be able to advise as to the basic strengths in the personality. In this connection, it is useful to note that the older person has a restriction of his fields of interest which, coupled with his forgetfulness, makes him attach undue importance to the minutiae of daily living and blame others for his own mistakes. This combination is often disturbing to families who react to the suspiciousness and "orneriness" without understanding the underlying mechanisms. It may be useful to point out to them the connection between this mechanism and the findings in the sensory isolation experiments of D. O. Hebb and others. D. Ewen Cameron<sup>3</sup> reports disorientation occurring in patients subject to nocturnal delirium if they were blindfolded and placed in a chair in a room. Within an hour they would become unable to maintain reasonable spatial images and would report several chairs or beds where there was only one of each. He goes on to comment that these people can maintain reasonable adjustments to their environments only if they were able to refresh their retention by repeated looks around them. Severe disruption of their usual functioning occurred when this was interrupted.

It is obvious that findings of this sort make it mandatory that the older person be maintained in an accustomed environment and routine. If hospitalization is necessary, the hospital rules must be altered sufficiently to allow for people, personal belongings and idiosyncratic habits to which the older person is used. These are more than humane gestures; they may be life-saving measures.

#### *Maintaining familiar environment*

That this dynamic approach to the problems of geriatrics is not merely theory is indicated by the experience on the Geriatrics Service at the Veterans Administration Hospital, Ft. Douglas Station, Salt Lake City, Utah, where Dr. Victor Kassel<sup>4</sup> has enlisted his ward personnel in a broad-based attempt to effect the rehabilitation program suggested above. Using a ward containing far-advanced and "hopeless" cases of senility, he has instituted an active treatment program with the dramatic results that, of 293 patients admitted, 35 per cent were on trial visit and 37 more patients were ready for trial visit. Of the remainder, 9 per cent had been discharged outright, 9 per cent had been transferred elsewhere, and 10 per cent had expired. Only three patients had to be returned to the hospital because of psychiatric maladjustment.

It is true that this activity has required the mobilization and enthusiastic participation of a trained hospital staff including nurses, social workers, psychologists and psychiatrists as well as the geriatrician in charge. But the principles can, and should, be incorporated in the management of every geriatrics problem. There is no room for fatalism in such an approach.

#### *Conclusions*

1. All physicians must be alerted to the geriatrics problem.
2. There is strong evidence that the active treatment approach utilized in the "functional" illnesses can achieve gratifying results in these supposedly hopeless patients. •

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<sup>3</sup>Cameron, D. E.: Discussion in Malamud, W., *Psychopathology of Aging*, Proc. Assoc. Res. Nerv. and Ment. Dis., Williams and Wilkins Co., Baltimore, Vol. XXXV, p. 79, 1956.  
<sup>4</sup>Kassel, V.: The Development of a Geriatric Service (in preparation).

#### **AMA sets up Research Foundation**

The American Medical Research Foundation recently was established by the AMA. Principal purposes of the Foundation will be: (1) to promote the betterment of public health through scientific and medical research; (2) to plan and initiate

scientific and medical research, and (3) to collect, correlate, evaluate and disseminate results of scientific and medical research activities to the general public. Voting members of the Foundation will be AMA trustees. Meetings will be held annually at the time of the AMA Annual Sessions.

# Cholangiography and the treatment of common bile duct stones\*

Edgar W. Barber, M.D., Denver

*A helpful diagnostic study is described,  
use of the T-tube emphasized,  
and choice of therapy clarified.*

THE SURGEON attempting to relieve obstruction in the common bile duct due to gallstones can be greatly aided by x-ray visualization of the common duct. Choledochograms taken during and after surgery by injecting opaque media directly into the common duct will usually prove or disprove four things: First, patency of the ampulla of Vater by visualizing the contrast media entering the duodenum; second, narrowing or inadequacy of the ampulla; third, condition of the biliary tree, and fourth, the presence or absence of calculi within the common and hepatic ducts.

When cholangiography is done on the operating table at the time of common duct exploration, certain factors are essential to obtain reasonably clear pictures and depict the condition of the bile radicals. These consist of proper co-operation and co-ordination with the x-ray department, before anesthesia is started, to see that the patient is properly positioned on the table in relation to the x-ray film, and to expedite the taking and developing of the films after the opaque media is injected into the duct. It is wise to mention that a better film may be obtained if the opaque media is injected into the common duct through a needle before the duct

is opened. This makes it easier to avoid air bubbles in the common duct which could appear like calculi and will help to avoid extravasation or spilling the dye outside the duct and thus fogging the pattern of the biliary tree. We use a 20-gauge needle on a 10 cc. syringe and aspirate as much as 10 cc. of bile before injecting the dye. Ten cc. of opaque material is usually adequate and we use lipiodol warmed to body temperature or one of the aqueous contrast mediae.

## *Check films during surgery*

X-rays taken on the operating table by a portable x-ray machine are never as clear or definitive as choledochograms made in the department's main laboratory, but they are often of great value in deciding whether the duodenum should be opened to establish patency of the ampulla of Vater and removing calculi locked in the ampullar area. They also aid in comparing with later choledochogram films taken during the patient's convalescence. It can, on occasion, be embarrassing to the surgeon who has explored the common duct, removed or hunted for stones, inserted a T-tube and closed the abdomen, only to find a few days later, calculi still remaining in the common duct. If a reasonably "clean" biliary tree is demonstrated by x-ray at the time of surgery, one's conscience is moderately assuaged when stones are found at a later date. A case exemplifying this point, along with measures taken to relieve the condition, is here presented:

## CASE REPORT

Mrs. F. M., a white woman aged 75, was operated upon December 17, 1956, for early obstructive jaundice. At surgery, a moderately acute cholecys-

\*Acknowledgment is made to Drs. Wendell Stampfli, radiologist, and William C. Black, pathologist, at St. Luke's Hospital, Denver, for their aid and advice; also to Mr. Jack Fason of U. S. Veterans Administration Hospital for photographic reproduction of x-ray films.

titis was found. The gallbladder was twice normal size and filled with stones. The common duct was dilated to 2 cm. in diameter and a number of soft lymph glands were seen and palpated in the gastro-hepatic omentum, varying in size from 1 to 2.5 cm. in diameter. They were freely movable and appeared inflammatory and non-malignant. One of the larger glands seemed to encroach slightly on the distal portion of the common duct. No other pathology was seen or palpated in the abdomen. About 10 cc. of turbid bile was aspirated from the common duct and 10 cc. of lipiodol injected through the same needle. Three or four x-ray films were taken on the operating table from slightly different angles. These films demonstrated the dilated biliary tree, the encroaching lymph gland near the ampulla, "probably no stones," and the lipiodol freely entering the duodenum. See Fig. 1.



Fig. 1. Depicts distal segment of the distended common duct with narrowing due to lymph gland (L G) encroachment and bile entering the duodenum.

The common duct was opened, carefully explored, and irrigated with warm saline. No stones but a little fine gravel was obtained and catheter,

probe, and saline seemed to enter the duodenum easily. A T-tube was inserted in the common duct and a cholecystectomy completed. The gallbladder contained many white cholesterol stones ranging in size from 0.5 cm. to 1.5 cm. in diameter.

Convalescence was uneventful and on the seventh postoperative day the patient was sent down to the x-ray laboratory and cholangiograms taken with uricon through the T-tube. An unmistakable stone, nearly 1 cm. in diameter, could be seen near the ampulla but not impeding the flow of the dye into the duodenum. See Fig. 2.

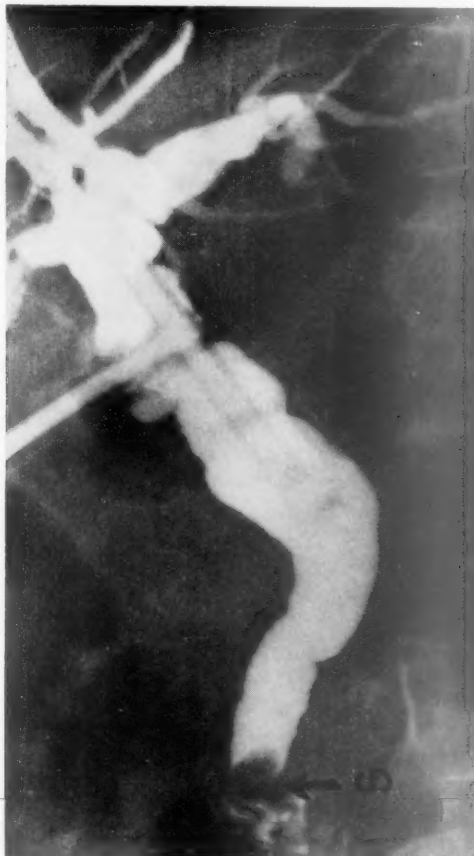


Fig. 2. Cholangiogram taken one week postoperative showing stone (S) at ampulla and dye entering duodenum.

The lymph gland noted at surgery encroaching on this area had apparently disappeared—responding, no doubt, to the postoperative antibiotic therapy. The patient felt fine, her jaundice was clearing, her stools were brown and she tolerated the T-tube being clamped since the fifth postoperative day without discomfort or the extravasation of bile around the tube.



### Discussion

The question now arose, should the patient be re-operated and the stone removed; should she be sent home with the almost certain assurance of recurrent common duct pathology; or should an attempt be made to flush, dissolve or dissipate the stone through the T-tube which remained in the common duct?

During the past twelve or fourteen years, Best, Rasmussen, Wilson and others have done considerable work and collected some valuable data on the dissolution and passage of stones from the common duct when a T-tube is already in place. The first reaction one has to the thought of dissolving gallstones in the common duct with chloroform, ether or any other cholesterol or bilirubin solvent appears to be rather toxic to the patient if not outright dangerous to perform. After reviewing the work done by Best, Narat, Morton, Michel and others, the contrary is found to be true. They report many cases in which stones, still present in the common duct, or biliary tree after common duct exploration, to be completely relieved of their calculi by a detailed method of irrigating the biliary tree through the T-tube in conjunction with a so-called "biliary flush" given the patient by mouth. They had only two failures in their series of fourteen or more and no serious complications or accidents during the procedure. Their success prompted us to use the method they employed in order to relieve our patient of her common duct stone and potential obstruction without resorting to further operative surgery. This procedure calls for the careful instillation and irrigation through the T-tube of warm normal saline, chloroform and ether while a cholagogue medication is given by mouth. A detailed step-by-step account of this procedure to bring about the stone's dissolution and/or passage into the duodenum follows:

For each of three days the patient is put on a high fat diet consisting of 1½ ounces of pure cream or olive oil before the noon and the evening meals. Three Decholin with Belladonna tablets after each meal and at bedtime. One-half bottle (6 ounces) of citrate of magnesia each morning before breakfast and one tablet of nitroglycerin (1/100 gr.)

dissolved under the tongue are given before the evening meal each day.

In the morning, after breakfast of the second day's medication, irrigation is begun through the T-tube in the following manner: With the patient in a semi-Fowler position in her bed, a 20 cc. syringe is attached to the T-tube and all the bile that can easily be sucked back from the common duct is aspirated. The syringe is then filled with warm normal saline and is slowly and carefully injected and irrigated by a gentle to and fro injection and aspiration action with the syringe plunger or asepto bulb. This is repeated with fresh saline a number of times until the aspirated common duct contents are nearly free of bile coloration. This procedure should cause little or no discomfort to the patient if gentleness is employed in distending the common duct. Now empty the duct by aspiration as much as possible and put 4 or 5 cc. of warm chloroform in the syringe. Gently inject or "barbotage" the chloroform into the common duct. The T-tube is then clamped and the chloroform left instilled in the common duct.

The instillation of chloroform does not provoke much discomfort or pain but the patient very shortly complains of a sense of weakness or faintness and sometimes nausea. These sensations gradually disappear in about fifteen to twenty minutes.

Twenty-four hours later the irrigation and instillation of chloroform is repeated exactly.

The next day everything is repeated up to the use of chloroform which is replaced with 5 cc. of ethyl ether, and here great care must be exercised in its instillation.

Remember, ether boils about two degrees below normal body temperature. This volatile characteristic causes considerable intraductile pressure when instilled and a corresponding amount of pain to the patient unless certain precautions are taken. First, instill 5 cc. of .05 per cent procaine in the common duct. Place 1/100 gr. tablet of nitroglycerin under the patient's tongue. Then add the ether by gravity and gentle pressure from the asepto bulb. The sudden pressure within the common duct may readily be the *coup de partie* to dislodge an ampullary stone into the duodenum.



A choledochogram is repeated the day following the last irrigation. If stones are still present the maneuver can be repeated in two weeks and in the meantime the patient can usually be discharged home with the T-tube still in place. With our patient the stone had completely disappeared as evidenced by Fig. 3.



Fig. 3. Cholangiogram taken day following completion of "biliary flush" and solvent irrigation, depicting absence of the stone at the ampulla, good emptying of dye into the duodenum, and less distention of common duct.

There is some question regarding the efficiency of ethyl ether in relation to the discomfort and pain attending its administra-

tion. Its value is due to the intra-ductile pressure and ampullar distention more than its solvent effect on the gallstones.

The solubility of the stones should be tested in warm chloroform and in ether whenever possible. This can be done by saving stones obtained from the gallbladder or common duct and observing their solubility in both solvents. Pure cholesterol stones will dissolve with hardly a visible trace in warm chloroform in a very few minutes. They dissolve much more slowly in ether. Bile pigment and mixed stones dissolve or disintegrate somewhat slower but a good idea of the efficacy of the procedure can be obtained if a sample of the patient's calculi can be tested before this common duct maneuver is undertaken.

There are few contraindications in attempting to dislodge or dissolve stones in this manner. The patient should be temperature free, tolerating food well and the obstruction incomplete, i.e., bile passing into the duodenum. The patient's liver should be in good nutrition and he should be carefully appraised of every step and the effect of each maneuver, since complete cooperation is most important.

A wide angle T-tube of various sizes with a double lumen is now available which permits the distal arm of the T-tube to direct the solution into the ampulla and in immediate contact with the stone and away from the smaller biliary radicals.

#### Summary

In conclusion, nothing very new or spectacular is intended in this report. What we hope to attain is a keener appreciation of the importance of having a T-tube available and in position in the common duct every time this organ is explored or there is suspicion of pathologic condition therein.

The significance of cholangiography is stressed both at time of surgery and in the convalescent period.

A typical case has been presented to prove the value of this procedure and a method of treatment explained in detail to help obviate further surgery when calculi still remain in the common duct. •

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# Sabin award for 1957 to John Zarit, M.D.\*

Roy L. Cleere, M.D., Denver

*One of Colorado's most highly regarded  
medical citizens has been honored  
in the name of Dr. Florence Sabin, by the  
Colorado Public Health Association.*

WHEN, IN 1944 and the following nine years of her life, Dr. Florence R. Sabin contributed her stimulating leadership to public health consciousness and to the strengthening of public health organization and programs in her native Colorado, she did so as an interested citizen who had retired from her own illustrious professional career of teaching and research in medical sciences. Her campaigning spirit and the community leadership it evoked among other key persons throughout the state heightened our realization of how greatly public health progress depends upon joint efforts of knowledgeable individuals in many walks of life. As a fitting honor to Doctor Sabin, therefore, the Colorado Public Health Association established an award to be conferred upon men and women who make outstanding contributions to public health in our state above and beyond the normal course of their occupations, professions, or other usual pursuits.

Executives and staff members of governmental and voluntary health departments and agencies can propose, administer, secure some funds for, and share in needed preventive and corrective action against hazards to

health and to the physical and mental well-being of our people. Achievement of the program goals, however, must always be a co-operative enterprise in which many other professions and groups participate. Especially essential, is a close and friendly working relationship with practicing physicians because they are the community members to whom the public customarily looks for health and medical guidance; and also because, basically, a great part of medical practice is directed toward the same objectives as modern public health. Promotion of health, prevention of physical and mental disease, prolongation of life, reduction of disability, and rehabilitation from impairing illness and injury are the concern both of public health workers and medical practitioners. If these purposes are to be achieved for the population as a whole, there must be close teamwork between the two professions.

## *Dr. Sabin's 1952 address*

Doctor Sabin paid tribute to the practicing physicians, as well as to other collaborators for public health, in her remarks on "Trends in Public Health" when making the John J. Sippy Memorial Address at the annual meeting of the Western Branch of the American Public Health Association in Denver in June, 1952. In commenting upon the tremendous gains against infectious diseases, the resultant lengthening of the life span, and the consequent increase in the chronic disease problem, she said, in part:†

"As we come face to face with this problem, may it not be well to consider carefully all the

\*Given during the Annual Meeting of the Colorado Public Health Association in Colorado Springs, May 23, 1957, by the Executive Director, Colorado State Department of Public Health.

†American Journal of Public Health, Vol. 42, No. 10, October, 1952, pp. 1267-71.

forces that have brought us so far in dealing with the acute infectious diseases. As the corner stone of the subject, let us ask, how much has it been a cooperative adventure? Of overwhelming importance, the foundation on which everything else rested was research. . . . When one considers research, medical schools and research institutes become the basic elements in the cooperative endeavor. There the research is carried on and students are trained in medicine both for research and in the spirit of research; new discoveries are made and their application thoroughly tested.

"In the practical application of knowledge two forces have carried the load—the public health service with its emphasis on prevention and the practicing physicians. . . .

"The full realization that the conquering of infectious disease has been a cooperative endeavor should make us aware of the great importance of lessening tensions between medical schools, the organized health services, and the practicing physicians. The entire medical profession should work as a coordinated whole, each recognizing the share of the load carried by the others. In the program for health for the last seventy years, including the first half of this century, more than the medical profession has been involved; indeed, we must include all the ancillary medical services plus the specific lay and medical organizations such as the National Tuberculosis Association which have concerned themselves with educating the public about disease."

#### *Dr. John Zarit*

The recipient of the Sabin Award this year, Dr. John Zarit, is a very busy practicing physician, medical school faculty member, and active worker on numerous medical, tuberculosis, and public health committees and boards. For many years he has given generously of his time, energies, sound judgment, and executive ability to cooperative planning of coordinated measures against diseases of serious public health concern—such as tuberculosis, other chest disease, and poliomyelitis; and to the furtherance of public health on many other fronts. Many of you know him and hold him in affectionate regard because he has a humanitarian warmth and wisdom that kindles in the hearts of others an enthusiasm for constructive action for the positive health of their fellows, young and old.

Doctor Zarit pursued his pre-medical and medical courses at the University of Colorado and was graduated from the Medical School of the university in 1923. He interned in Brooklyn, New York, and then returned to Colorado to serve a residency in chest diseases at the JCRS tuberculosis hospital. A

veteran of World Wars I and II, he has also been a guiding force in the reduction of tuberculosis in Colorado and in the development of facilities for the care of other long-term illnesses, medical care plans, and public health programs.

#### *Activities in tuberculosis field*

At present, he is consultant in chest diseases to the American Medical Center, formerly the Jewish Consumptive Relief Society, the National Jewish Hospital, and the Veterans Administration. In addition, he is president of the medical staff of Saint Anthony's Hospital, and is on the active and courtesy staff of all other Denver hospitals. Formerly, he was a medical director of Sands House, originally a tuberculosis sanitarium for women, and also was assistant director of the Tuberculosis Division of Denver General Hospital.

He serves the medical profession and the people of this state as a professor of medicine at the University of Colorado, and as a member of the board of trustees and secretary of the Colorado Blue Shield medical insurance plan. As a fellow of the American College of Physicians and a member of the American Trudeau Society, he keeps abreast with the advances in his specialty and in other medical and health fields, and is instrumental in obtaining their practical application in Colorado. His broad knowledge and progressive outlook have been repeatedly demonstrated in his service on medical and public health committees.

He has been chairman of the Tuberculosis Control Subcommittee of the State Medical Society since 1946 and chairman of the Public Health Committee of that Society since 1953. In 1956 he was also chairman of the Public Health Committee of the Denver Medical Society. In these capacities he has made clear the interrelated objectives of public health and medical practice.

In 1947, recognizing need for developing the interest of private physicians not only in the treatment of tuberculosis but also in its public health aspects, he conceived the idea of taking to each county medical society a program on chest diseases including tuberculosis. This activity has persisted and expanded over the years and has the wide support of the physicians in the state. Through-

out the series of meetings, Doctor Zarit has stressed that tuberculosis is not solely the concern of physicians but also is one of vital importance from public health and economic standpoints. Meanwhile, as chairman of the Tuberculosis Control Subcommittee of the State Medical Society, he has officially supported public health programs in tuberculosis control far beyond what might have been expected of a physician in private practice.

#### *Other public health activities*

As chairman of the Public Health Committee of the State Medical Society, he has continually emphasized the interdependence of medical practitioners and members of the public health profession. Accordingly, he has encouraged appointment of public health executives and specialists to committees of the State Medical Society. In his Public Health Committee work he has shown great personal integrity and courage in supporting programs of vital importance to the welfare of the people of Colorado. He has been staunch and tireless in his assistance even when the measures required considerable explanation and, therefore, placed a heavy personal burden of interpretation and clarification upon him.

As chairman of the Public Health Committee of the State Medical Society, he has also been a member of the State Poliomyelitis Advisory Committee which has counseled the State Department of Public Health throughout the immunization program which started with the Salk vaccine trials in 1954. The fact that Colorado now ranks among the top four of all the states in percentage of the population vaccinated is a tribute to the leadership that Doctor Zarit has displayed as a continuous member of the Advisory Committee ever since 1954. He also is a leading spokesman and planner for the Medical Society's present cooperative drive to immunize as many people under 40 as possible.

#### *Summary*

I know that in the years to come, Dr. John Zarit will be ably championing the cause of public health in many ways. The people of Colorado and the medical profession can be proud of the vision that he has shown in his combined private practice, medical teaching, and public health services; and be grateful for the interest that he has had in their welfare. •

### **American Board of Obstetrics and Gynecology**

The Part I examinations of the American Board of Obstetrics and Gynecology are to be held in various parts of the United States and Canada, on Thursday, January 2, 1958, at 2:00 p.m.

Candidates notified of their eligibility to participate in Part I must submit their case abstracts within thirty days of notification of eligibility. No candidate may take the written examination unless the case abstracts have been received in the office of the Secretary.

Current bulletins outlining present requirements may be obtained by writing to the Secretary's office: Robert L. Faulkner, M.D., American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

### **Bahamas Medical Conference December 1-15, 1957**

The Fourth Bahamas Medical Conference will be held at the Fort Montagu Beach Hotel in Nassau, Bahamas, December 1-15, 1957.

The Bahamas Medical Conferences offer busy doctors an opportunity for an unrivaled vacation

combined with an excellent medical program. Ample time is reserved for recreational activities. Lectures and clinics are so arranged as to keep most of the day free for the enjoyment of Nassau's beauty and facilities.

Reservations should be made by writing directly to Mr. John L. Cota, General Manager, Fort Montagu Beach Hotel, Nassau, Bahamas. The registration fee is \$75.00. Checks should be made out to the order of "Bahamas Medical Conference," and sent to Mr. Cota when making reservations.

American and Canadian citizens do not require passports for travel to the Bahamas. Vaccination certificates are not required. There are no tropical illnesses in Nassau and the temperature in December is around 70° F.

### **Cholangiography** *cont. from 1147*

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# Experimental intestino-aortic grafts in dogs\*

By Peter G. Brandetsas, M.D., Fayetteville, N. C., and J. G. Merrill, M.D., Grand Junction, Colo.

*An original paper on experimental animal surgery illustrating the detailed preliminary work necessary before new surgical technics can be applied to their human counterparts.*

THE IDEAL SUBSTANCE for replacement in vascular structures should closely approximate the substituted tissue. Variable results with living and non-living materials, as summarized by Peirce<sup>3</sup>, stimulated the authors to experiment with segments of intestinal ileum, to evaluate its potential use as a graft material. Experiments in four dogs will be described.

## *Types of graft*

It is accepted that the most ideal graft would be living material identical with the material being replaced. This would automatically result in the best opportunity for acceptance into the recipient site and is found in the autologous graft. A homologous graft satisfies the mechanical requirement of form and structural similarity but instances of

failure are variably blamed on circumstances of allergy or loss of blood supply<sup>3</sup>.

At the other extreme, plastic or non-viable materials do not require a blood supply, but invariably create a hazard of non-acceptance into the recipient site. The use of dacron mesh and other similar substances, however, as reported, indicates the encouraging results that have been obtained to date<sup>1</sup>.

## *Ileum graft*

The decision to experiment with ileum graft was based on the fact that, if successful, it might possibly lead to a graft of tubular structure, easily obtained, with an intrinsic blood supply (Fig. 1A). It was not known whether the mucosa would interfere with the proposed function, or could possibly be removed in later experiments, and also whether the muscular elements would adjust to the hemostatic forces with a resultant work hypertrophy. Whether an intestinal wall muscle pedicle graft would vascularize other structures, such as cardiac, endocrine, or renal tissue, or whether investigative possibilities exist as to osmotic or other membrane studies between blood and intestinal mucosa remain speculative. The use of ileal grafts in other fields (bladder, stomach, esophagus) are well known.

## *Preparation and Technics*

Four dogs were selected, weighing twelve to seventeen kilograms. The abdominal aorta varied from 5 to 8 mm. in diameter, and was not proportional to size of dog. Distal ileum was fairly constant, measuring 13 mm. in diameter in all four dogs. Preparation included distemper treatment, enteric sulfa-

\*This work made possible by a grant from the Research Committee of the Veterans Administration Hospital, Grand Junction, Colorado. Dr. Brandetsas is currently on the surgical service of the V.A. Hospital in Fayetteville, N. C., and Dr. Merrill was formerly Chief of Surgery, V.A.H., Grand Junction, Colorado.

Reviewed in the Veterans Administration and published with the approval of the Chief Medical Director. The statements and conclusions published by the authors are the result of their own study and do not necessarily reflect the opinion or policy of the Veterans Administration.

Gratitude is expressed to the Lumley Veterinary Clinic, Grand Junction, Colorado, and to the Medical Illustration Laboratory, V.A.H., Dallas, Texas, for their technical help in the preparation of this work.



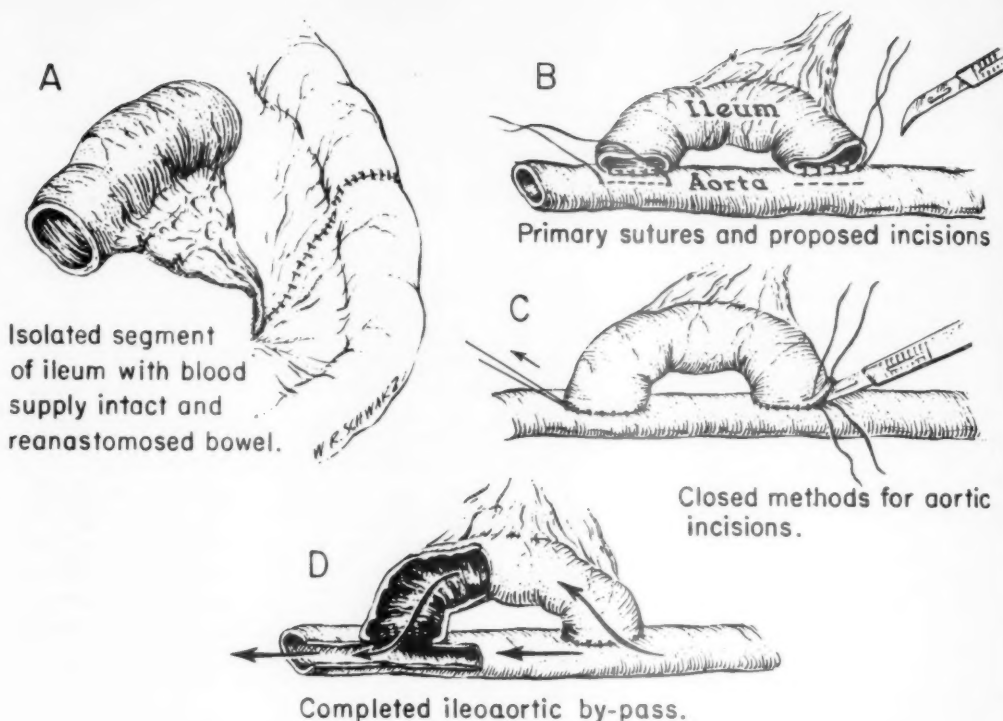


FIGURE 1

Fig. 1 depicts the basic step of bowel segment isolation with preservation of the blood supply (A). B, C, and D represent the steps in Experiment No. 2, in which the blood was permitted to circulate in the intestinal bypass. Sacrifice at 42 days.

Experiment No. 1 is not depicted, but is done by fashioning a disc from the basic bowel segment (Fig. 1A) at the area of the vascular supply, and then rolling the edges under to permit approximation of the serosal layer to the adventitial surface. Sacrifice at four months.

succidine, non-feeding, and castor oil catharsis (30 cc.), one day prior to surgery. The general principles of intra-abdominal dog surgery as described by Markowitz<sup>2</sup> were followed. Cotton sutures (0000,00) were used. Anesthesia consisted of intravenous nembutal, supplemented with drop ether. Average operating time was 1.45 hours.

Figures 1, 2, and 3 graphically illustrate the details and results of our major experiments. Isolation of ileal segment and reanastomosis of ileum (Fig. 1A) is basic to all procedures. The segment was uniformly selected as an 8 centimeter segment, with the distal point 15 cm. proximal to the ileocecal valve. The work area in the abdominal aorta was limited by the renal arteries and the bifurcation, and varied from 5 to 7 cm. Microscopic study of healing, approximated

serosa (intestine) and adventitia (aorta) showed varied numbers of interposed fibroblasts, suggesting true tissue healing. The longest period of healing was four months, at which time intestinal wall was firmly adherent to aorta adventitia (Expt. 1). Two dogs were sacrificed, those of Experiment No. 1 (not illustrated), and Experiment No. 2 (Fig. 1B, C, D), at four months and forty-two days, respectively. In these, pulsations were demonstrated by manometer and arteriotomy observation at celiotomy. Postmortem study indicated the patency of the vascular elements of the intestinal pedicle. Urinary habits were unchanged in all dogs.

#### Complications and flow problems

Dogs in Experiments No. 3 (Fig. 2A, B, C), and No. 4 (Fig. 3A, B, C) died of compli-

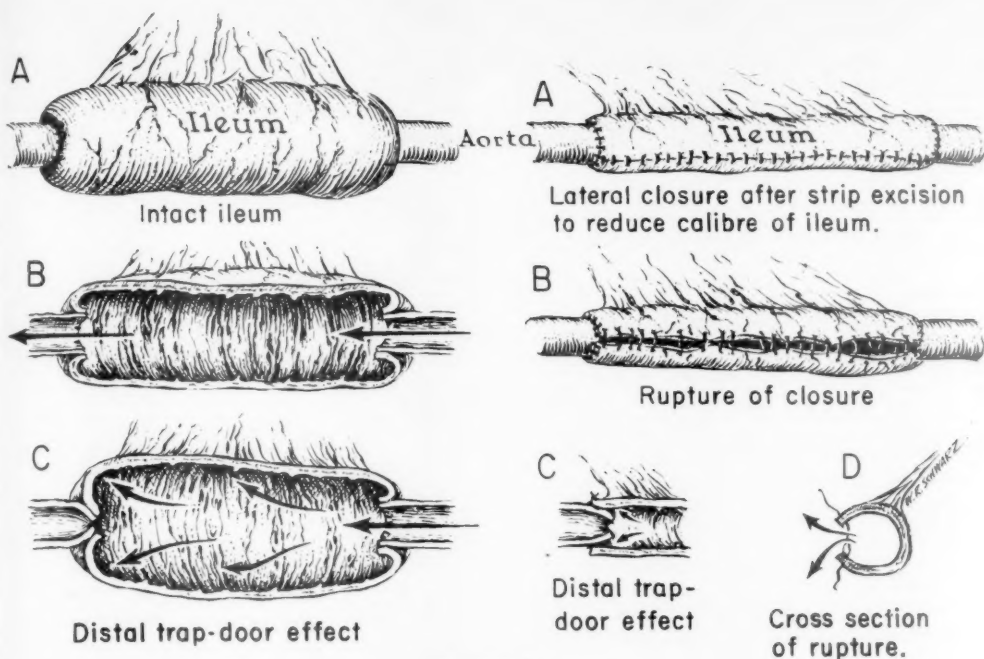


FIGURE 2-3

Fig. 2 (left). A and B illustrate the completed and cutaway views of the intestino-aortic graft in Experiment No. 3. Distal trap door effect, caused by the lines of force of blood flow against the distal anastomotic shelf, is depicted in C. Survival time three days.

Fig. 3 (right). A represents the completed graft after strip excision of a longitudinal segment of bowel and approximation of the wall edges to effect a smaller caliber intestinal segment. B and D illustrate the rupture of the lateral closure,

which followed blood flow obstruction at the distal anastomosis (Fig. 3, C). Survival time eleven days. The photograph pictures the resected specimen in Experiment No. 2. The sagittal section on the left was taken directly through the apertures of the anastomoses. The hemisection on the right shows the recently gelled blood and suggests the difficulty with blood flow through the narrowing apertures at time of sacrifice (forty-two days). The vascular pedicle is easily seen in the hemisection. The degenerated mucosa and thickening of the intestinal wall are evident in the sagittal section.

cations during the third postoperative day (distemper virus, adenopathy, and hepatitis), and the eleventh postoperative day (rupture of ileal graft, with hemorrhage), respectively. These dogs presented early postoperative paresis, and eventually complete paralysis of the hind extremities, within twelve and seventy-two hours, respectively, presumably indicating greater patency of the distal anastomosis in Experiment No. 4. The line of force of blood flow in the proximal anastomosis does not appear to cause interference, as it does in the distal "trap door effect" noted in these experiments. While postmortem study indicated closure of the distal anastomosis, manometer and arteriotomy study indicated the patency and blood flow in the

aorta distal to the graft, at completion of surgery. Other postoperative complications included local abscess formation (Expt. No. 3) and as mentioned, rupture of longitudinal intestinal suture line and death due to hemorrhage (Expt. No. 4).

Additional remarks incidental to the various experiments are as follows:

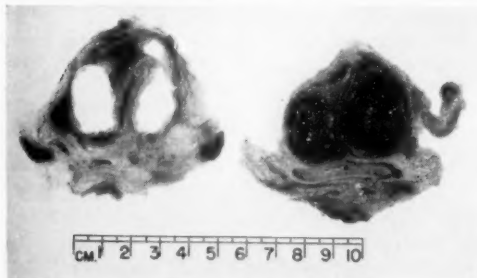
#### Serosal-adventitial healing

Experiment No. 1. This consisted of excising most of the ileal segment to allow a disc shaped wall of vascularized intestine to remain, which was then inverted at the serosal edge, to approximate serosa with aortic adventitia, creating a closed space, lined with adventitia and mucosa. Sacrifice at four

months revealed inspissated gray-white material in the closed space, presumably dried mucosal membrane secretions. The aortic lumen was not entered and there was no morbidity discernible. This experiment provided the most suitable material for microscopic study of healing status between intestinal serosa and aortic adventitia.

#### *Bypass intestinal graft*

Experiment No. 2 (Fig. 1B, C, D) provided another long term study, without morbidity or paralysis. Blood circulated in the bypass intestinal graft (see photograph) but at time of sacrifice, the anastomoses at each point were reduced to 2 mm. slits. This presumably was because the blood flow force took the path of least resistance, following the main channel in the uninterrupted aorta. The work hypertrophy and the patency and function of the vascular elements of the graft were well demonstrated at exploratory celiotomy at time of sacrifice. The two methods used to create the lumen of the anastomoses in Experiment No. 2 are illustrated in Figure 1B (suture pull out method), and Figure 1C (curved scalpel for incision) at the time of completion of tissue approximation and completion of anastomotic suture.



#### *Complete graft replacement*

Experiments No. 3 and No. 4 represent attempts to effect a complete graft replacement. Inadequate distal blood flow is indi-

cated by the fact that paralysis developed. The distal trap door effect attests to the inadequacy of the anastomotic methods chosen, and points out the importance of direction of flow, since the proximal anastomosis remained patent. This problem might be more easily managed in a larger experimental animal, or if feasible, in man, because of the mechanical facility in dealing with larger structures. The attempt to equalize the diameters of intestine and aorta by excising a longitudinal strip of intestinal wall and suturing the edges to narrow the lumen proved unsuccessful because the added weakness caused rupture of the wall (Expt. 4).

#### *Conclusions*

Based on these experiments, aortic segmental replacement with intestinal graft and intrinsic blood supply is theoretically a technical possibility, and perhaps a practical endeavor for eventual use in man. Further study is necessary to evaluate the possibility of systemic blood changes when constant exposure to intestinal mucosa is effected. These experiments indicate that adhesion healing (contiguity) occurs, but they are not adequate to demonstrate or evaluate possible vascularization.

#### *Summary*

Four experiments in dogs are described using intestine as a graft material in aorta. The report includes technical descriptions of the surgery plus mechanical, gross, and microscopic findings of interest. Suggested further studies and eventual uses in humans are discussed. •

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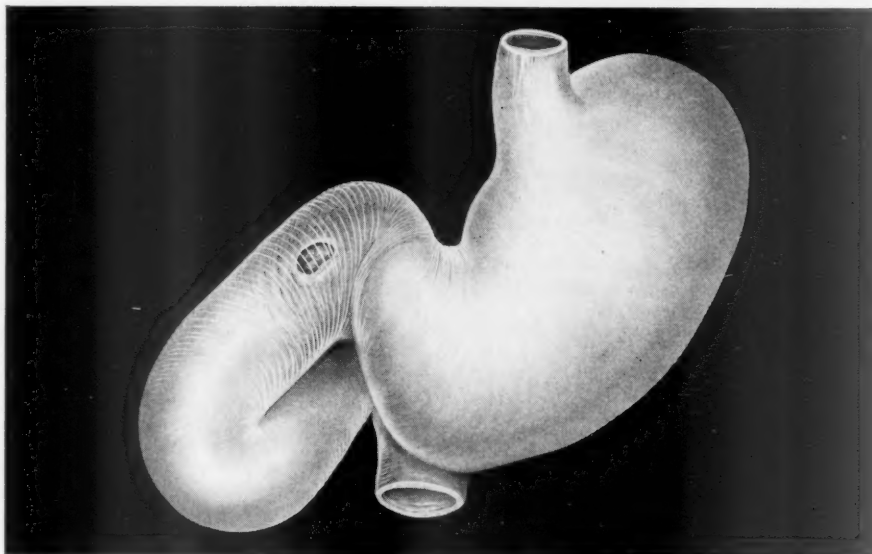
#### **AMA committees schedule meetings**

Two committees of the AMA Council on Medical Service plan regional meetings Monday, December 2, in Philadelphia just prior to the AMA's 11th Clinical Session. The Committee on Maternal and Child Care—first regional meeting on perinatal mortality and morbidity.

The Committee on Aging—third regional conference for members of state committees on aging. Subjects to be discussed include physical examinations and a health maintenance program.

Physicians interested in attending either of these sessions should contact the Council for further details.

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*in depressing gastric secretory volume and in inhibiting gastrointestinal motility.”\**

“Our findings were documented by an intensive and personal observation of these patients over a 2-year period in private practice, and in two large hospital clinics with close supervision and satisfactory follow-up studies.”\*

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Therapeutic utility and effectiveness

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\*Lichstein, J.; Morehouse, M. G., and Osmon, K. L.: Pro-Banthine in the Treatment of Peptic Ulcer. A Clinical Evaluation with Gastric Secretory, Motility and Gastroscopic Studies. Report of 60 Cases, Am. J. M. Sc. 232:156 (Aug.) 1956.

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**Organization** cont. from 1153

rooms set aside where they will meet. Any men who want to discuss any of the resolutions or any of the reports, any member of the Society, are invited to go to any of these rooms and discuss it with the committee. The reference committees and the Resolutions Committee will report tomorrow afternoon at 2:00 p.m.

President Davis: Dr. Hunter, will you give your Secretary's report?

Doctor Hunter: In addition to attending the various monthly Council meetings and other special meetings required by the Executive Committee, one of the chief duties of the Secretary is that of being Chairman of the Scientific Program Committee. Your committee felt that much could be done to improve the annual meetings in general. Considerable time and effort was expended to bring you a superior type meeting.

The selecting and inviting of the scientific speakers consumed much thought and time. It was felt that further utilization of our own faculty from the University of Utah College of Medicine would be appropriate, as well as permitting a wider and more selective choice of visiting speakers. Again this year the University of Utah College of Medicine through two of its departments is furnishing two one-hour symposia. . . .

In conclusion, may I add my observations concerning two of our officers. James Z. Davis, M.D., has served most capably as our President. Few of you realize the innumerable hours and demands on his time. He has represented us with dignity and respect. Mr. Harold Bowman, our efficient Executive Secretary, performs his task always with willingness and is devoted to our cause. You who may only come in contact with him in an occasional committee meeting little realize his time and efforts expended to all.

(Dr. Hunter's report was approved unanimously.)

Doctor Davis: During the recent battle in the Legislature, we had the energetic and unqualified support of the Ladies' Auxiliary of the Utah State Medical Association, and it is customary and appropriate at this time that we have a report from our Ladies' Auxiliary. It is a pleasure to welcome before the House of Delegates Mrs. Anthony J. Lund and Mrs. Paul A. Clayton.

Mrs. Lund: I am happy to greet you as the new President of the Woman's Auxiliary to the Utah State Medical Association. I am proud to be a part of this organization, and it is a great challenge to face this new year of activity.

We doctors' wives are, for the most part, very Auxiliary-minded; and our endeavors toward furthering your interests are far-reaching. This year the Auxiliary slogan, as stated by our National President, Mrs. Paul C. Craig, is, "Health Is a Joint Endeavor." With this keynote in mind, we have made plans to put our emphasis on several phases of Auxiliary work.



Raising funds for the American Medical Education Foundation, which as you know was formed to supplement the budgets of the medical schools of the United States, will be one of our main objectives.

We also will strive to acquaint more and more people with the Benevolent Memorial Fund. This fund is not too well understood, even by our own profession, and consequently has not been widely used in the past. To review the project with you I might explain that it is a fund toward which anyone may contribute in the name of a deceased person, in lieu of flowers or other contributions. The money thus accrued is used to aid deserving medical students of the University of Utah Medical School who may need financial help in order to complete their studies. The fund may also be used for relief of families of members of the Utah State Medical Association in times of pecuniary distress or disaster. So you see it is extremely important that we acquaint everyone possible with the advantages of using the Benevolent Memorial Fund.

Another field in which we hope to make great strides this year is that of medical recruitment. Not only will we raise money for nurse scholarships, which we have done in the past, but we will branch out and give aid to those entering allied fields, such as medical technicians, hospital personnel, medical social workers, etc.

Above these and other projects which we are working on comes the good will we can and will produce public relationwise. We are cognizant of the problems facing you and us in regard to our relationships with the public, and we are making a concerted effort to ease the burden for you by becoming more civic minded, by mixing with all groups of people, by joining in their problems, and by proving to everyone we meet that truly, "Health is our joint endeavor."

President Davis: Thank you, Mrs. Lund. It now gives me pleasure to introduce Mrs. Clayton, past President of the Ladies' Auxiliary.

Mrs. Clayton: During my term of office this past year I have wondered many times how many of you, our doctor husbands, have any idea what this body called the Woman's Auxiliary that you support does with its moneys and what good, if

**EVERY WOMAN  
WHO SUFFERS  
IN THE  
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*widely used  
natural, oral  
estrogen*

## Thanksgiving

The spirit, faith and gratitude that led early Americans to set aside a day for Thanksgiving will again be observed this month. It is fitting that we pause and humbly give thanks for our bountiful endowments and opportunities.

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any, it accomplishes. There seemingly is much ado about conventions and meetings, and occasionally you are asked for advice. . . .

I would like to explain to you where the \$5 per member you give us is allotted and how we spend it. Two dollars per member is given to the county, \$2 per member goes to the state, and \$1 per active member—now I said, active member—to the National Auxiliary. . . .

We have 391 active members on a national basis, but we have a like number of members as you men on a state basis.

We hold a fall convention and entertain the National President and officers. We try to make this convention a self-supporting one. We usually do up to about \$100 to \$150, expenses to the Auxiliary.

We hold a school of instruction for new officers and chairmen because we feel that the most important thing we do for you men is still a public relations one. Then we hold a House of Delegates meeting in May to which we invite all the counties that are active. It is a very active group. We give some philanthropic aid. By that I mean perhaps \$10 to the Red Cross and so forth. A nominal amount of \$5 to \$15 is given to committee chairwomen for their expenses, such as postage and office and so forth.

Our legislative expenses during a year such as we have just gone through—we did quite a great deal. We held four to five state meetings at your headquarters during the year. Then we have our

travel expenses for the President and the President-Elect, whenever she can go.

I think you realize we cannot make progress or do much in the way of public relations today without expense. In other years only a token payment on any expenses incurred by the state officers was paid. However, this year we decided in our budget and finance meeting that we would like to know actually what it cost to run our Auxiliary, paying its expenses and not hiding those expenses by personal payment by the wives, officers of the group, and not turning it in as expense.

To do this we passed a budget in deficit of \$699, for the first time in the history of the Auxiliary. We did this trying to cover conservatively what we felt our expenses would be. It was voted on and passed by the committee, with the recommendation that this money be taken from the working balance, which was money that had been saved by the Auxiliary during years gone by.

For the first time the President's and the President-elect's transportation and itemized personal expenses were paid in full to the Workshop in Chicago, which is held by the National to acquaint these new officers with the jobs they expect them to do. I want to show you how complete this is because forty-three of the forty-eight states sent both the President and the President-Elect, and not just the President-Elect. The balance of the states sent one or the other officer.

The President's transportation and personal

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for NOVEMBER, 1957

1165

## SECOND MEETING

Thursday, September 5, 1957

President Davis: If there are forty-four delegates in attendance—forty-six now—I declare a quorum present and the meeting will be called to order for the afternoon's business.

There has been some consideration by the Constitution and By-Laws Committee, that we should have two meetings of the House of Delegates at two different times: One, a one-day meeting, or fraction thereof, at the time of our annual scientific meeting here; and then another meeting of the House of Delegates at the time of the Ogden Surgical meeting, which would give time to lay certain particular controversial business or resolutions aside and consider them, hold hearings and so on, and then pass on them at the April meeting.

Is there any other new business that any member of the House of Delegates would like to consider at this time?

### Reference Committee No. 1

Doctor McAllister: On the reports referred to Reference Committee No. 1, perhaps we can run through the various printed reports in the Journal first. The amended Constitution and By-Laws of the Utah State Medical Association starts on page 5 of the Blue Book. We have reviewed it and found some places where it has been recommended to our committee and approved in our committee that certain changes be made.

On page 7, under Chapter IV—up to that point we found nothing or nothing was suggested for change—but under "Election of Officers," Section 1:

"At least three months prior to the annual session, the Council of the Association will meet as a nominating committee . . ."

It has been suggested by the Council and recommended for approval by our committee to change it to "At least one month prior to the annual session. . ."

The second change that has been suggested was in the same section, at the head of the page, that we delete from line 8 down, where it states:

"In the election of the Delegate and Alternate Delegate to the A.M.A., if a majority vote is not cast on the first ballot, the nominee receiving the highest number of votes will be declared elected. In case of a tie vote, for delegate or alternate, the tie shall be determined by lot."

If we delete that, it leaves it that the election of the delegate and alternate delegate will be based on the same principles as the election of the other officers; that is, that they will require a majority vote of the delegates to be elected.

Then on page 9 under "Grievance Committee," Chapter VII, down in Section 2:

"The duties and responsibilities of the Grievance Committee of the Utah State Medical Association shall be as follows: To meet at the call of the Secretary. . ."

It has been recommended that the word "Chair-

man" be used instead of "Secretary," since I think it is the Chairman who calls the meeting.

The next point of interest, on page 10, under "Standing Boards," Chapter IX down in Section 2, where it reads:

"Seven members will be appointed by the University of Utah College of Medicine and seven members will be appointed by the President of the Utah State Medical Association to constitute this fourteen member board."

The following suggestion has been made, that at that point it state that the President shall appoint a committee of seven members with tenure as follows: Three men for one year, two men for two years, and two men for three-year terms, in order to fill that seven man committee. Thereafter annually he will appoint two men for three-year terms and one man for a one-year term, and the maximum tenures shall not exceed seven years.

Down under Section 3 where it reads:

"The President of the Association will appoint seven members from the Utah State Medical Association. . ."

It is a similar board, the Medical Advisory Hospital Relations Board. We have suggested the same change, that the President shall appoint rather than a seven-year office, a committee of seven members with tenure as follows—and then repeat the same thing—three men for one year, two men for two years, and two men for three-year terms. Thereafter annually he will appoint two men for three years and one member for a one-year tenure. Any questions on that?

It was the opinion of Reference Committee No. 1 that with these changes we approve the report on the Amended Constitution and By-Laws of our Association.

President Davis: Is there a motion to accept the committee's report?

Doctor Bryner: I would like to make one suggestion; in Chapter IV, bottom of page 7, Section 1, that they nominate one or more members rather than make it a mandatory order to nominate two members. I think it would be better if that is said, "They will nominate one or more members . . ." rather than make it mandatory for two, and I so make that motion. I would make that as an amendement motion.

Doctor Clark: I would be opposed to that. I am opposed to bringing in only one man for President-Elect; that is railroading a man through.

Doctor Bryner: They only nominated one man when they should have nominated two. They can nominate two, they can nominate four; it doesn't stop that at all. It makes it so if there is only one man nominated by the Nominating Committee, it is still within the By-Laws.

President Davis: Let us take this section by section now. Turn to Section 1, Chapter IV, on the bottom of page 7, the first change. It has been suggested by the committee that we change that from, "At least three months" to "At least one month prior to the annual session. . ." Do I have a motion for the acceptance of that change?

Doctor Spear: I will so move. (Second.) (There-

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The recommended adult dose is 1 Gm. (2 tablets or 4 teaspoonfuls of syrup) the first day, followed by 0.5 Gm. (1 tablet or 2 teaspoonfuls of syrup) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive  $\frac{1}{4}$  of the adult dosage. It is recommended that these dosages not be exceeded.

**Tablets:**

Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxy-pyridazine. Bottles of 24 and 100 tablets.

**Syrup:**

Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

<sup>1</sup>Nichols, R. L. and Finland, M.: J. Clin. Med. 49:410, 1957.

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upon a vote was taken and Dr. Spear's motion carried unanimously.)

Dr. Edward McKay: I think there are occasions when the Nominating Committee may want to nominate more than two. So I should like to amend the proposal and have it two or more instead of one or more. (Thereupon a vote was taken, and Dr. McKay's amendment carried.)

Doctor Bartlett: Now I will move that at the bottom of page 7, the left-hand column, there be added, "A member may be nominated for only one office."

President Davis: We now have an amendment to Chapter IV by Dr. Bartlett—was there a second to that amendment?—"A member may be nominated for only one of the above offices." (Thereupon a voice vote was taken, and the motion approved.)

Doctor Allen: Back on the same motion, I can't find anything which provides for notifying the constituent societies in the lower part of the State who is nominated. We have no chance to discuss it. Can't the Nominating Committee notify the constituent societies right after the meeting the nominations for each office?

President Davis: I think I have got this right, Dean, that the nominees of the Nominating Committee be published in the August issue of the Bulletin, is that right? We can say August or that the members of the component societies be otherwise notified. Is that all right? Do we have a second for the amendment?

Doctor Spear: I will accept the amendment.

Doctor Anderson: I will second it. (Thereupon a vote was taken and Dr. Wright's amendment carried unanimously.)

President Davis: Now a vote on the amendment that the nominees of the Nominating Committee be published in the August issue of the Bulletin. (Thereupon a vote was taken and Dr. Spear's motion as amended carried.)

President Davis: On Chapter IV, top of page 7, the last six lines are deleted, which means that again any candidate for all the offices must receive the majority of the votes cast. That is the suggestion. Is there a motion that we delete this?

Doctor Darke: I so move.

Doctor Muir: Second. (Thereupon a vote was taken and Dr. Darke's motion carried unanimously.)

President Davis: On page 9, Chapter VII, Section 2, line 4, delete the word "Secretary" and place in there "Chairman," and that means Chairman of the Grievance Committee.

Doctor Darke: I so move. (Thereupon a vote was taken and Dr. Darke's motion carried unanimously.)

President Davis: Now on page 10 under "Standing Boards." It is proposed and recommended by the reference committee that we change it so the President of the Utah State Medical Association shall appoint three members for a one-year term, two members for a two-year term, and two members for a three-year term. (It was moved, seconded and approved.)

Now unless there is some alternate suggestion, we will proceed on to the other amendment, and that is Chapter XVII which you just heard read:

"Section 1. The President of the Utah State Medical Association during his term of office shall also be a member of the Board of Directors of the Medical Service Bureau.

"Section 2. The President of the Board of Directors of the Medical Service Bureau during his term of office shall be a member of the Council."

Doctor Spear: I so move.

President Davis: This raises a point, whether or not we have any right here in this meeting—

Mr. Bowman: They would have to change their Constitution and By-Laws just like we are changing ours.

Doctor Clayton: We had planned something like this, but as far as the legality of it, what about it?

Mr. Aadnesen: You have no right to tell them. The Blue Shield is a separate corporation. They elect their officers and their members of the board just as you do here. I would suggest that you make it that they be requested in that particular instance. I don't think there is any question about the intent; I'm sure there was a step forward in both directions, but you don't have the right to tell the Blue Shield.

Doctor Spear: I think my motion was out of order.

President Davis: You withdraw it?

Doctor Spear: Yes.

President Davis: All right, Dr. Jorgenson proposed that we adopt Section 2.

Doctor MacFarlane: Second the motion.

President Davis: Is there any further discussion? (Thereupon a vote was taken and Dr. Jorgenson's motion carried unanimously.)

Doctor McAllister: As a committee, we suggest that the Constitution and By-Laws be accepted as approved. (Thereupon a vote was taken and Dr. McAllister's motion carried unanimously.)

Doctor McAllister: On page 21, the report of the Councilor of the Carbon County Medical Society. Our members reviewed this report and find it a complete, good report of the things going on

continued on 1186

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# New Chemotherapy

## INDICATIONS:

- Rheumatoid arthritis, acute or chronic—  
with or without adjunctive therapy.
- Spondylitis
- Arthritis associated with lupus  
erythematosus or psoriasis

## HOW SUPPLIED:

**Aralen phosphate:** 250 mg. tablets in bottles of 100 and 1000.  
125 mg. tablets in bottles of 100.

## Tolerance:

Aralen is usually well tolerated. Toxic effects are usually mild and to date have been transitory in nature, disappearing completely either on continuance or cessation of therapy or on reduction in dosage.

Gastrointestinal disturbances (e.g. nausea, rarely vomiting, diarrhea, abdominal cramps, anorexia) are frequent manifestations of intolerance. Temporary blurring of vision (due to interference with accommodation) is also relatively frequent.

Pleomorphic skin eruptions (e.g. lichenoid, maculopapular, purpuric), although generally mild, may preclude the use of an optimum dosage schedule. If a skin reaction persists on a reduced dosage schedule, or recurs after reinstitution of treatment with gradually increasing doses, discontinue Aralen till the lesion again disappears and consider resuming treatment with Plaquenil® (brand of hydroxychloroquine).

Less frequently transitory vertigo, headache, lassitude, or neurological disturbances, such as nervousness, irritability, emotional change, and nightmares have been reported. Instances of unexplained slight gradual weight loss as the patient's general health and arthritic condition improved have been mentioned. Occasional instances of bleaching (depigmentation) of the hair have been described.

Although an occasional instance of leukopenia, with normal differential count, has been reported (WBC about 3000), it has not proved troublesome because it has always been reversible on discontinuance, or diminution of the dose. Even spontaneous reversal may occur while full dosage is maintained.

## THEORY OF ACTION:

Aralen appears to suppress or induce remission of rheumatoid inflammatory processes by inhibiting adenosinetriphosphatase.

## Caution:

Aralen is known to concentrate in the liver and, although hepatic damage has never been reported, the drug should be used with caution in the presence of liver disease. In the presence of severe gastrointestinal, neurological, or blood disorders, the drug should be used with caution or not at all. If such disorders occur during the course of therapy, the drug should be discontinued. Concomitant use of gold or phenylbutazone with Aralen should be avoided because of the tendency of these agents to produce drug dermatitis.

## Clinical Comments:

Of fifty patients receiving Aralen therapy, "43 have become really well; that is, they have no stiffness, and any pain that occurs can reasonably be attributed to use of joints affected by secondary degenerative changes. They have no evidence of joint inflammation, but may have a raised erythrocyte sedimentation rate. They have little or no need for analgesics."

Freedman<sup>1</sup>

"One hundred and twenty-five private patients have been carefully followed clinically and haematologically while receiving well over 200 patient-years of chloroquine [Aralen] therapy. The results are considered good in 70%, one-half of these cases being in remission. Improved work performance, sedimentation rate, and hemoglobin levels paralleled the major objective gain in this 70%. 90% of them remained on chloroquine [Aralen] therapy, half for more than two years. Classical peripheral rheumatoid arthritis, spondylitis, arthritis of juvenile onset, and rheumatoid disease with psoriasis, all appeared to respond about equally well.

"It is suggested that chloroquine comes closer to the ideal for long-term, safe, control of rheumatoid disease than any other agent now available."

Bagnall<sup>4</sup>

"Out of the 36 rheumatoid arthritis cases we treated . . . favorable results were obtained in 32 cases."

Bruckner et al.<sup>5</sup>

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7. Scherbel, A. L., Schuchter, S.L., and Harrison, J.W.: Comparison of effects of two antimalarial agents, hydroxychloroquine sulfate and chloroquine phosphate, in patients with rheumatoid arthritis, *Cleveland Clin. Quart.* 24:98, April, 1957.

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**Organization** cont. from 1182

in the Carbon County Society, and have recommended that it be approved.

The report of the Councilor of the Uintah Basin Medical Society, page 23, has been reviewed by the committee and it is also recommended it be approved.

The Secretary's report which we were assigned was presented before this body yesterday and was approved by the House.

The report of the Medical Advisory Committee to the University of Utah Medical Center, page 26, has been reviewed and is recommended for approval. The Sewage, Water and Air Pollution Committee report has been reviewed by our committee and found satisfactory, and we recommend its approval and so move. Report of the School Health Committee on page 32 of the booklet has been reviewed and recommended for approval, and it is so moved.

Special Committee Allied to Public Relations, in our review of this report we find it is very excellent for the Salt Lake County area, but there is lacking any report of allied public relations outside of the Salt Lake City area. We would recommend that this report be made more complete to include the activities outside of the Salt Lake County area. On page 36, the Newspaper Health Column Committee, reported by Chairman Q. B. Coray. We have studied this report and recommend

its approval and so move. The Geriatrics Committee, page 37. We likewise have reviewed and approved this report and move that it be accepted.

On page 41, the Child Adoption Committee report. I would like to come back to that one after we present the resolutions. The Veterans' Affairs Committee, page 42, we approved it and recommend the acceptance of the report and so move. The committee reports were approved as recommended by the reference committee.

**Resolutions**

(Resolution I as adopted reads as follows:)

"WHEREAS, the rates for malpractice or professional liability insurance have been raised several times in recent years without adequate reasons or statistical data being presented to support or justify these increases; and,

"WHEREAS, representative committees of the Utah State Medical Association have been unable to obtain statistics to justify these increases;

"THEREFORE BE IT RESOLVED, that the Utah State Medical Association file a protest with the State Insurance Commissioner if and when underwriters file a petition for further increases of professional liability or malpractice insurance rates."

(Resolution II as adopted reads as follows:)

"WHEREAS, Governor George D. Clyde of the State of Utah saw fit to veto Senate Bills 50 and 51, which would have permitted naturopaths to perform minor surgery, obstetrics and prescribe narcotics; and

"WHEREAS, Governor George D. Clyde in taking this action, protected the people of Utah from a practice by persons not medically qualified; and

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"WHEREAS, such action is in the best interests of the health and welfare of the people of the State of Utah:

"THEREFORE BE IT RESOLVED, that Governor George D. Clyde be commended for his courageous action in vetoing this type of legislation;

"AND BE IT FURTHER RESOLVED, that a copy of this resolution be forwarded to Governor George D. Clyde."

(Resolution III as adopted reads as follows:)

"WHEREAS, the Council of the Utah State Medical Association has entered into a contract to care for dependents of military personnel under Public Law 569, 84th Congress (Medicare):

"THEREFORE BE IT RESOLVED, that the Delegate from the Utah State Medical Association to the American Medical Association be instructed to introduce or support a resolution at the next regular meeting of the House of Delegates of the American Medical Association requesting that responsible governmental officials take whatever steps necessary to secure modification of Public Law 569, 84th Congress, so that dependents of military personnel be given medical care under a prepaid medical care program such as Blue Shield."

Resolution XV, Inspection of Hospitals, was defeated.

Resolution XII, Child Adoption, was tabled.

(Resolution XXIII as adopted reads as follows:)

"WHEREAS, there is a need for improved public relations:

"THEREFORE BE IT RESOLVED: That a full-time public relations representative be employed in accordance with the following:

"1. That an annual assessment be made of \$20 per full dues paying member of the Utah State Medical Association for the specific purpose of this resolution, these monies to be maintained as a

special fund, accountable to the Treasurer of the Utah State Medical Association by the Standing Special Committee on Public Relations.

"2. That the Standing Special Committee on Public Relations together with the Council of the Utah State Medical Association select, advise and direct the activities of the public relations representative.

"3. That the Standing Special Committee on Public Relations will be responsible for survey and research of all proposed legislation in order to keep our profession informed promptly of all legislation affecting the health and welfare of the people of Utah.

"4. The public relations representative will represent the Utah State Medical Association to the State Legislature in order to promote and further the general health and welfare of the people of Utah.

"5. The Public Relations representative will be liaison between the people of Utah, their representatives and the Utah State Medical Association.

"6. Any surplus as determined by annual audit of funds provided for the Standing Special Committee on Public Relations can be used only with the authorization of the House of Delegates."

#### Reference Committee No. 2

Doctor Cluff: Mr. President, Reference Committee No. 2 met this morning and examined the report from the Councilor of the Box Elder Medical Society. It is on page 21. We move that it be accepted without any changes. (Second.) (Thereupon a vote was taken and Dr. Cluff's motion carried unanimously.)

Doctor Cluff: On page 22, the report of the Councilor of the Central Utah Medical Society. I



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move this be accepted without any changes. (Second.) (Motion carried unanimously.)

Doctor Cluff: On the next page, page 22, the report of the Councilor of the Utah County Medical Society. I move this be accepted without any changes. (Second.) (Motion carried unanimously.)

Doctor Cluff: Page 25, the Medical Economics Committee report. They had no business. We move this be accepted. (Second.) (Dr. Cluff's motion was carried unanimously.)

Doctor Cluff: Page 27, the report of the Special Committee Allied to Public Health, the status of public water supplies in Utah. This is the committee where the influenza report comes in and Dr. Okelberry and his committee have given us an additional report on this.

#### *Asian influenza*

Recommendations of the Special Committee Allied to Public Health of the Utah State Medical Association.

Immunization is advisable with the following priority groups receiving the vaccine first:

Hospital personnel, including volunteer workers. Doctors and their office personnel. Pregnant women. Persons with known cardiovascular pulmonary disease. Personnel working in nursing homes. Patients in hospitals and nursing homes. State, City and County Health Department personnel. Members of Police and Fire Departments. Employees of public utilities, including transportation.

#### **Suggested dosages:**

Infants and pre-school children—two doses of 0.1 cc., intra or subcutaneously, two weeks apart. School children up to 13 years of age—0.5 cc. Persons over 13 years of age—1.0 cc. Immunization dose of polyvalent vaccine might be given three to six months after monovalent injection.

#### **General information:**

Vaccine should not be given to persons allergic to eggs. Start vaccination at three to six months of age. Incubation period is from 24 to 72 hours. Duration of the disease is from three to five days. Contagious period is uncertain. (One to five days.) Immunity after vaccination occurs in about two weeks. Immunity occurs in about 70 per cent of the cases and should last about one year. Antibiotics should not be given to uncomplicated cases of influenza. Causative organisms producing complications should be identified and their susceptibility to antibiotics determined. Physicians should make every possible effort to provide immunization for the priority groups first. Through widespread publicity, persons belonging to the priority groups should be urged to obtain immunization from their family physicians.

We move that this be accepted by the House of Delegates with the commendation to Dr. Okelberry and his committee for having such a fine report. (Thereupon a vote was taken and Dr. Cluff's motion carried unanimously.)

Doctor Cluff: Page 30, the Tuberculosis and Cardiovascular Committee report. We move this be accepted with no changes. (Carried unanimously.)

Doctor Cluff: On page 32, the report of the Legislative Committee. We recommend this report be accepted with commendation to Dr. Hicken and his committee for their fine work and report for the past year. (Second.) (Thereupon a vote

was taken and Dr. Cluff's motion carried unanimously.)

Doctor Cluff: On the next page, the Utah Health Committee. We move that report be accepted and recommend that the public relations counsel that we are planning to hire make a study of the effectiveness of our radio, TV and high school panels. (A vote was taken and Dr. Cluff's motion carried unanimously.)

Doctor Cluff: Relations with Press, Radio and TV Committee. I move this report be accepted. (Second.) (Motion carried.)

Doctor Cluff: On page 36, the Blood Bank Committee. We would suggest that a Blood Bank Committee be appointed by our State Council with members from each component society; and that this committee hold meetings to iron out many complaints that we are receiving about blood banks and donors and reciprocity of donors and the use and overuse of blood.

They say there have been no meetings or no problems, but we didn't feel that that was right. (Thereupon a vote was taken and Dr. Cluff's motion carried unanimously.)

Doctor Cluff: On page 37, Joint Nursing Resources Committee. We move this report be accepted with the commendation to Dr. Mortensen and his committee for all of their fine work; and we would like to add on page 41 at the top, the left-hand column, that this committee be a continuing committee so that the experience these men learn each year is not lost in having a complete new committee come in each year.

Doctor Rumel: I have been tremendously interested in this problem and I hope that if you have not all read this report and thought about it, you will do so; because it seems to me that a decline in numbers of nurses is an exceedingly serious thing and is going to result in increased morbidity and mortality if we as doctors don't do something to help the situation. I think we as doctors, if we are interested in our patients, have got to be back of this 100 per cent and do what we can about it.

I have tried to do something individually about it in talking to administrators and to nurses and to other doctors, but learned shortly that that wasn't effective. I realized pretty quickly the reason that none of us of the three groups were accomplishing much was each was working in his little sphere without communicating to the others with reference to their problems and thoughts, and each body got essentially nowhere. I talked to Dr. Porter and some of the men over a year ago and came up with the resolution recommending the formation of this group, and that was passed by the Council and the work went underway.

I think we have all seen a lot of projects and a lot of committee activity. I think you will rarely see one where the chairman and the group has done such an admirable job, and I would like awfully well, in addition to simply accepting this, to make another motion:

That we write a letter to the members of this group and commend them highly for the excellent



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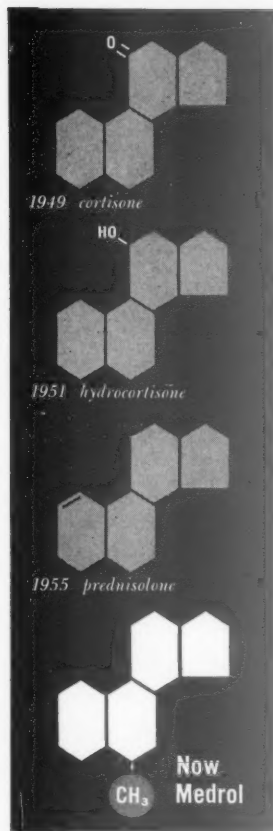
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work they have done. And second, that we as members of the House of Delegates urge all the other members of our society as individuals to make a concerted effort to get behind this project in carrying out the recommendations. And third that we encourage the committee to continue the work as it stands or with any changes which the three component groups would deem advisable.

President Davis: Is there a second to Dr. Rumel's amendment?

Doctor Jorgensen: I second it. (Thereupon a vote was taken and Dr. Rumel's amendment carried unanimously.)

Doctor Cluff: Page 42, report of the Postgraduate Medical Seminar Committee. We recommend that this report be accepted. (Second.) (A vote was taken and Dr. Cluff's motion carried unanimously.)

Doctor Cluff: Building Committee report on page 43. We recommend this report be accepted. (Second.) (Dr. Cluff's motion carried unanimously.)

Doctor Cluff: Reference Committee No. 2 considered the following resolutions: Resolution IV, which has to do with Retirement Plans for Members of the Blue Shield. We move this resolution be adopted. (A vote was taken and Dr. Cluff's motion carried unanimously.)

(Resolution IV as adopted reads as follows:)

"WHEREAS, the Jenkins-Keogh Bill, or similar legislation, has failed to pass Congress in several years, and may be unsuccessful in this session of the Congress; and

"WHEREAS, there are legal opinions stating that a portion of the payments to doctors by the Blue Shield could be set aside until the doctor is 65 years of age or in a lower income bracket:

"THEREFORE BE IT RESOLVED, that we authorize the Utah State Medical Association to institute such plans and procedures as are legal and most suitable to accomplish this purpose for doctors who are members of the Blue Shield, said doctors to each indicate in writing his desire to defer payment for services until age 65 or later."

Doctor Cluff: Resolution VI, the House of Delegates to Meet Twice a Year. We move that this resolution be adopted. (Second.)

(Resolution VI as adopted reads as follows:)

"WHEREAS, the date now set for the annual meeting of the House of Delegates of the Utah State Medical Association is in September of each year to coincide with the annual meeting of the Utah State Medical Association; and

"WHEREAS, the House of Delegates of the American Medical Association meets in conjunction with the annual meeting in June of each year and at the interim session in November or December of each year; and,

"WHEREAS, these arrangements make it impossible for our State Delegate to the American Medical Association to be properly instructed and directed by the House of Delegates of the Utah State Medical Association as to his course of action at these meetings:

"THEREFORE BE IT RESOLVED, that in the future, meetings of the House of Delegates of the Utah State Medical Association be held twice each year, prior to the annual meeting of the American Medical Association and prior to the interim session:

"BE IT FURTHER RESOLVED, that the Council of the Utah State Medical Association be authorized to set the date for these meetings."

Doctor Cluff: Resolution XI, subject, Medical Technologists to be Given Professional Status. We move this resolution be adopted.

(Resolution XI as adopted reads as follows:)

"WHEREAS, the field of medical technology is composed of highly trained and skilled workers who are competent to discharge their duties as part of the medical teams; and,

"WHEREAS, other members of the medical team such as nurses, physical therapists, dietitians, etc., are afforded professional status; and

"WHEREAS, there has been an elevation of the minimum standards for the Registry of Medical Technologists to a collegiate level similar to other professional personnel recognized as part of the medical team; and

"WHEREAS, Medical Technologists (Medical Technologists-American Society of Clinical Pathologists) deserve this same professional recognition:

"THEREFORE BE IT RESOLVED, that Medical Technologists be recognized as members of a profession and this affirmation of professional status by the American Society of Clinical Pathologists and the College of American Pathologists be sent to the chairman of the Civil Service Commission to call his attention to the professional status of Medical Technologists as recognized by pathologists."

Doctor Cluff: Resolution XVII, subject, Association Membership. We move this resolution be adopted. (Second.) (Thereupon a vote was taken and Dr. Cluff's motion carried.)

(Resolution XVII as adopted reads as follows:)

"WHEREAS, the component societies and the Utah State Medical Association were organized for the purpose of joining with the American Medical Association for the purpose of improving medical care of the people, and to further the education of physicians:

"THEREFORE BE IT RESOLVED, that membership in the American Medical Association be a mandatory requirement of membership in a component constituent society in the State of Utah."

Doctor Cluff: Finally we considered Resolution XX, subject, the Corporate Practice of Medicine. I move this resolution be adopted. (Second.) (Thereupon a vote was taken and Dr. Cluff's motion carried unanimously.)

(Resolution XX as adopted reads as follows:)

"WHEREAS, there have been controversies in the United States and the State of Utah on the corporate practice of medicine, and

"WHEREAS, the definition of the corporate practice of medicine has not been defined by the Utah State Medical Association:

"THEREFORE BE IT RESOLVED, that the Utah State Medical Association adopt a definition of the corporate practice of medicine for uniform application throughout the State of Utah."

Doctor Cluff: That leaves Resolution XXII which was tabled until the report was read of the Special Committee Allied to Public Health, that is having to do with the Asian flu.

Doctor Child: I move we reject this resolution. (Second.) (A vote was taken and Dr. Child's motion carried unanimously.)

#### Reference Committee No. 3

Doctor Clayton: The first report is on page 21, the report of the Councilor from Cache County. The Committee commends the excellent attend-

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## Organization cont. from 1190

ance records at county meetings and feels that such attendance at county meetings would help solve many of the problems of organized medicine. We move the adoption of the report. (Second.) (Dr. Clayton's motion carried unanimously.)

Doctor Clayton: The next report is on page 22, the report of the Councilor from the Salt Lake County Medical Society. We commend the excellence of the report of the Councilor. There are a number of recommendations referred to that have been covered by specific committee resolutions, and we don't happen to have them in this committee. I think most of them come up in the next committee report. So I move that we adopt the report as printed and the recommendations will be covered in the subsequent committee report. (Second.) (Motion carried unanimously.)

Doctor Clayton: The next report is the Grievance Committee report on page 24. The committee is very pleased that this important committee had such an easy year, and we hope it is an indication of the general condition throughout the State. We move the adoption of the report. (Second.) (Motion carried unanimously.)

The next report is the Medical Legal Committee report on page 25. We commend Dr. Nebeker and his committee for the terrific amount of work done on the subject of malpractice and malpractice insurance. We recommend that his last report to the Council be read to this body as a matter of information only because we feel that the delegates will then be informed as to what is being done. I move the adoption of this report. (Second.) (Dr. Clayton's motion carried unanimously.)

The next report is that of the Trauma Committee on page 29. We accept the report as printed and we recommend the committee follow up on the adoption of a uniform emergency record and that the profession apply the safety principles in their own lives. We move the adoption of the report. (Second.) (Motion carried unanimously.)

Doctor Clayton: The next report is that of the Rural Health Committee on page 30. It is quite a long report. We accept the report as printed and we wish to commend Dr. Farnsworth and his committee for an outstanding job, as a result of which Utah was the host to the regional meeting of the Rural Health Council of the A.M.A., a meeting held in Logan this past year. We suggest that the recommendations pertaining to the chairman attending the meeting at Lafayette, Indiana, be referred to the Council for action. We move the adoption of this report. (Second.) (Dr. Clayton's motion carried unanimously.)

Doctor Clayton: The next report is the Industrial Health Committee report on page 33. We move the report be accepted as printed. (Second.) (Motion carried unanimously.)

Doctor Clayton: The next report is the Insurance Plans Committee report on page 35. We suggest that the committee with the help of the Council follow through with the recommendations

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to have payments made directly to doctors or to the doctor and patient as suggested in the report. We move the acceptance of this report. (Second.) (Motion carried.)

Doctor Clayton: The next report is that of the Advisory Committee to the Woman's Auxiliary on page 36. In line with the request of Mrs. Lund and Mrs. Clayton in their reports yesterday, we recommend that the committee meet directly with the officers of the Woman's Auxiliary to discuss their plans and mutual problems. We move the adoption of this report. (Second.) (Motion carried unanimously.)

Doctor Clayton: Next is the Radio and TV report on page 44. The committee feels that the money appropriated for this activity is money well spent, but we recommend that in the future the services of the public relations consultant to be retained by the Association be utilized in developing adequate programming and format for the radio and TV programs. We move the adoption of this report. (Second.) (Dr. Clayton's motion carried unanimously.)

Doctor Clayton: Now we have a number of resolutions. The first one is Resolution VII. We move the adoption of this resolution. It concerns the Chairmen of Committees to be Members of the House of Delegates.

(Resolution VII as adopted reads as follows:)

"WHEREAS, there is an evident need for members of the House of Delegates to be better informed when voting on the committee reports at the annual meeting of the House of Delegates:

"THEREFORE BE IT RESOLVED, that the officers of the Utah State Medical Association give careful consideration of members of the House of Delegates when appointing chairmen of the various state committees and when possible appoint a delegate as chairman of each state committee."

Doctor Clayton: Resolution VIII concerning Dr. George M. Fister to be a member of the Council of the Utah State Medical Association. We move the adoption of this resolution.

(Resolution VIII as adopted reads as follows:)

"WHEREAS, George M. Fister, M.D., Utah delegate to the American Medical Association, has been elected to the Board of Trustees of the American Medical Association, one of the highest honors ever accorded a doctor from this area; and

"WHEREAS, his election to this high position

will mean that he will not be eligible for reelection as a delegate from Utah:

"THEREFORE BE IT RESOLVED, that George M. Fister, M.D., during his tenure on the Board of Trustees of the American Medical Association be made a member of the Council of the Utah State Medical Association;

"BE IT FURTHER RESOLVED, that Dr. Fister be commended for his great work in behalf of medicine in Utah and the nation."

Doctor Clayton: The next resolution is Resolution IX, the Councilors to the Utah State Medical Association to have Alternates.

(Resolution IX as adopted reads as follows:)

"WHEREAS, the Council of the Utah State Medical Association conducts the business of the Association between meetings of the House of Delegates; and

"WHEREAS, it is not possible for any one physician to attend all meetings of the Council:

"THEREFORE BE IT RESOLVED, that the Committee on Constitution and By-Laws be instructed to draw up changes in the Constitution and By-Laws providing that the component societies shall have alternate councilors to have full powers of the councilor when attending meetings in place of the regular councilor:

"BE IT FURTHER RESOLVED, that the Committee on Constitution and By-Laws present these changes to the House of Delegates at the next regular meeting."

Doctor Clayton: Resolution X concerning the Constituent Society Delegates' meetings. We move the adoption of this resolution.

(Resolution X as adopted reads as follows:)

"WHEREAS, there is an evident need for members of the House of Delegates to be better informed on resolutions and reports upon which they must vote at the annual meeting of the House of Delegates:

"THEREFORE BE IT RESOLVED, that the delegates of all constituent component societies hold one or more meetings prior to the meetings of the House of Delegates of the Utah State Medical Association for the purpose of considering information from committees of their own societies or the committees of the Utah State Medical Association, and to consider any other business that is pertinent to their duties as delegates, to the end that such members of the House of Delegates may more intelligently vote or legislate on matters which may come before the delegates at meetings of the House of Delegates."

Doctor Clayton: Now the last resolution is Resolution XIV which concerns in part the change in the Constitution voted on earlier in the meeting. Since this is a double purpose resolution and it reads here: "That the President of the Board of Directors of the Medical Service Bureau of the Utah State Medical Association automatically become a member in full standing of the Council of the Utah State Medical Association," the committee has added this: "and that the President of the Utah State Medical Association be automatically a member in full standing of the Board of Directors of the Medical Service Bureau of the Utah State Medical Association."

(Resolution XIV as adopted reads as follows:)

"WHEREAS, the Medical Service Bureau (Blue Shield) of the Utah State Medical Association is an official organization of the medical profession, offering to the public of the State of Utah voluntary prepaid health insurance on a service benefit basis; and,

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"WHEREAS, since the problems involved in an operation of this magnitude are many, directly affecting the welfare of both the public and the profession, it is apparent that there needs to be closer liaison between the Utah State Medical Association and the Medical Service Bureau (Blue Shield): and,

"WHEREAS, there has been no definite mechanism in the past to accomplish such liaison:

"THEREFORE BE IT RESOLVED, that the President of the Board of Directors of the Medical Service Bureau of the Utah State Medical Association automatically become a member in full standing of the Council of the Utah State Medical Association, and that the President of the Utah State Medical Association be automatically a member in full standing of the Board of Directors of the Medical Service Bureau of the Utah State Medical Association."

#### *Reference Committee No. 4*

Doctor Hruska: Your Reference Committee No. 4 considered the following reports: First, on page 16 the Executive Secretary's report. Your committee recommends the adoption of this report. (Second.) (Motion carried unanimously.)

Doctor Hruska: The next report considered was the report of the Councilor of the Southern Utah Medical Society on page 23. Your committee recommends the adoption of this report. (Second.) (Motion carried unanimously.)

Doctor Hruska: The next report is on page 24, the report of the Rocky Mountain Medical Conference Continuing Committee. Your committee recommends the adoption of this report but at the same time recommends further that the Council of the State Medical Association examine the purpose and function of this committee and the wisdom of continuing the same. (Second.) (Motion carried unanimously.) The report and recommendation are carried.

Doctor Hruska: The next report considered was the Medical Education and Hospital Committee report on page 26. The committee recommends the adoption of this report. (Second.) (Motion carried unanimously.)

Doctor Hruska: The next report considered was that of the Cancer Committee, page 29. Your committee likewise recommends the adoption of this report. (Second.) (Motion carried unanimously.)

Doctor Hruska: Next considered was the report of the Mental Health Committee, page 31. Your committee recommends the adoption of this report. (Second.) (Motion carried unanimously.)

Doctor Hruska: Next considered, on page 34, the Special Committee Allied to Public Relations. Your committee recommends the adoption of this report. (Second.) (Motion carried unanimously.)

#### *Necrology report*

Doctor Hruska: The next report is the report of the Necrology Committee, page 37. The com-

continued on 1220

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mittee recommends the adoption of this report. (Second.)

President Davis: I think it is customary at this time for all of us to stand while these names are read in reverence to our former members.

Doctor Hruska: The following members of the Utah State Medical Association have passed away during the past year:

Kersey C. Riter, M.D.  
Russell W. Owens, M.D.  
Walter L. Felt, Sr., M.D.  
F. E. Straup, M.D.  
G. Lucian Sears, Jr., M.D.  
Farley G. Eskleson, M.D.  
Samuel H. Major, M.D.  
E. C. Openshaw, M.D.  
R. S. Allison, M.D.  
W. R. Brown, M.D.  
Clarence C. Hetzel, Sr., M.D.

(The delegates observed a moment of silence.)

Doctor Hruska: The next report considered was on page 42, Hospital Relations Committee. Your committee likewise recommends the report be adopted. (Second.) (Motion carried unanimously.)

Doctor Hruska: We next considered the report of the Council of the Weber County Medical Society. Your committee recommends the adoption of this report.

Doctor Hruska: Next considered by your committee were the following resolutions: Resolution V and Resolution XXI dealing with the Department of General Practice in the University of Utah Medical School. The committee felt that the aims and purposes of both these resolutions were identical although perhaps the wording was somewhat different. However, the committee recommends to you for your consideration basically Resolution V with changes.

(Resolution V as adopted reads as follows:)

"WHEREAS, in the House of Delegates of the A.M.A. in December 1955, this distinguished body concurred by unanimous vote the following directive: 'That a continuing committee on Medical Practice be created, that this committee be directed to utilize all possible measures to stimulate the formation of a Department of General Practice in each medical school, and further, that the A.M.A. approve of the medical school teaching programs which afford the medical student opportunity for experience in the general practice of medicine.'

"THEREFORE BE IT RESOLVED, that the House of Delegates of the Utah State Medical Association notify the President of the University of Utah, the Dean of the Medical School, and Governor of the State of the action taken by this House of Delegates."

Doctor Hruska: The next series of resolutions the committee felt belonged together because they dealt in essence with the same subject matter beginning with Resolution XIII, Free Choice of Physician; Resolution XIX, Standing Committee to Review Contracts; and Resolution XVIII, Time Limit for Contract Adjustments.

(Resolution XIII as adopted reads as follows:)

"WHEREAS, we firmly believe the principle of

free choice of physicians to be one of the inherent rights and liberties of any American citizen; and

"WHEREAS, the House of Delegates of the American Medical Association has adopted 'guides' governing the panel practice of medicine or other patient-doctor relations which do not abide by the long established principle of free choice of physician as defined by the 'Principle of Ethics' of the American Medical Association; and,

"WHEREAS, we realize the deep responsibility of each doctor and of organized medicine to the patient's welfare and in carrying out the principle of free choice of doctor;

"NOW THEREFORE BE IT RESOLVED, that the following guide should be in effect and govern the actions and conduct and responsibilities of all members of the Utah State Medical Association:

"1. All persons, including the beneficiaries of a third-party medical program should have available to them good medical care and should be free to select their own physicians from among those willing and able to render such service.

"2. Free choice of physician and hospital by the patient should be preserved.

"3. Every physician duly licensed by the state to practice medicine and surgery should be assumed at the outset to be competent in the field in which he claims to be, unless considered otherwise by his professional peers.

"4. A physician should accept only such terms or conditions for dispensing his services as will insure his free and complete exercise of independent medical judgment and skill, insure the quality of medical care, and avoid the exploitation of his services for financial profit.

"5. The interposition of a third party between the patient and the physician in any medical care program and who assumes the prerogative of passing judgment on the treatment rendered by physicians, including the necessity of hospitalization, length of stay, and the like, is unethical.

"6. A fee-for-service method of payment for physicians should be maintained except under unusual circumstances. These unusual circumstances shall be determined to exist only after a conference of the liaison committee and representatives of the third party.

"7. The qualifications of physicians to be on the hospital staffs and by local governing boards of hospitals."

(Resolution XIX as adopted reads as follows:)

"WHEREAS, the House of Delegates of the Utah State Medical Association has adopted a resolution governing panel practice of medicine and free choice of physicians, together with a resolution prescribing certain procedures in relation thereto; and,

"WHEREAS, the aforesaid resolutions should be supplemented by a standing committee, appointed by the Council of the Utah State Medical Association;

"NOW THEREFORE BE IT RESOLVED, that the Council of the Utah State Medical Association appoint a standing committee, the number and membership thereof to be determined at the discretion of the Council, to meet at least quarterly and review all contracts doctors have with third parties, industrial or otherwise, written or oral, and to report thereon with recommendation to the Council.

"BE IT FURTHER RESOLVED, that said committee invite a similar committee or representatives from the hospital or Hospital Association to meet with them from time to time in the interest of hospital-doctor relationships."

(Resolution XVIII as adopted reads as follows:)

"WHEREAS, the House of Delegates of the Utah State Medical Association recognizes that the policy established by this body in the adoption of the

resolutions relating to panel practice of medicine and free choice of physician implementation thereof by the Council may place some members of the Society in violation of the principles of medical ethics by continuing practices which they have carried out for some years, and in all sincerity believed to be proper; and,

"WHEREAS, this House of Delegates is equally aware that some of said practices are currently being carried out under legally binding contracts; and,

"WHEREAS, this body is also aware that there will be some medical plans which do not involve contracts but whose arrangements, though entirely verbal, have become so well established that a reasonable period of time be allowed for re-adjustment of their operation to abide by the principle of free choice of physician;

"THEREFORE BE IT RESOLVED, that the Council of the Utah State Medical Association allow a reasonable time for adjustments of the foregoing relationships to take place, provided however, that such adjustments should be completed within one year from the effective date of this resolution;

"BE IT FURTHER RESOLVED, that the Council shall give due consideration to special circumstances including the existence of lawful contracts, which may require extensions in individual cases;

"BE IT FURTHER RESOLVED, that the House of Delegates and the Council shall and do hereby admonish all members of the Utah State Medical Association who are concerned to begin at once to take such steps as necessary to effect these adjustments and hereby direct the judiciary bodies of all component societies of the Utah State Medical Association to observe this resolution and the resolution relating to panel practice of medicine and free choice of physician and all sections and paragraphs thereof until further notice."

Doctor Hruska: The final resolution considered by your committee was Resolution XVI entitled World Medical Association. Your committee approves the resolution and recommends its adoption.

(Resolution XVI as adopted reads as follows:)

"WHEREAS, the World Medical Association is the only international medical organization representing the practicing profession in the fields of medical economics and medical education and devoted to protection of the freedom of the practice of medicine; and,

"WHEREAS, the United States Committee of W.M.A. was organized in 1948 to enable all American physicians to render support to the objectives of the World Medical Association and help improve the status of organized medicine internationally;

"THEREFORE BE IT RESOLVED, that the House of Delegates of the Utah State Medical Association

reiterate its support of the World Medical Association and recommend that every member of the Utah State Medical Association join the U. S. committee of the World Association."

Doctor Rumel: Mr. President, when you voted on Resolution V, I did not hear Resolution XXI mentioned again in this discussion.

These two resolutions I am quite interested in and many of you know I have been for some time; because while it isn't a direct approach to one of our serious problems, it does provide the opportunity I believe for the men who are on that committee to maybe make a backdoor or sidedoor approach to it. That is the problem of the tremendous disproportion between the generalist and the specialist when we consider the over-all needs of the public with reference to medical and surgical care.

I certainly hope that the men who work on that committee will take an opportunity, which undoubtedly will come up, to try to get the balance of the thing back in the proportion to supply these needs of the public. I am sure that a survey could be made on this general practice thing and perhaps a better estimate of the over-all needs be made.

It seems a shame to me that we as medical educators guide, or maybe we had better say, misguide young men or women into a field of endeavor after a long period of training where they are not going to be able to practice the field that they studied for, and that has happened over and over again right in front of us. I think we who are engaged in private practice, and particularly those of us who have been in medical education, would have a better chance to evaluate the needs of the people and the ability to absorb people in various fields than the amateur men and women as they start out just beginning on their medical education.

I would like to talk a little more along the same lines to get another thing straightened out that arose when I made a talk here at the Salt Lake County House of Delegates on May 16th, 1957; and apparently after discussing this matter a little bit, my comments were grossly misunderstood. In the discussion, as well as the subsequent meeting, it ended up that I was in favor of limiting

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or restricting young men from coming into certain areas after they finished their period of training, which most certainly was not the thing I had in mind at all.

I feared that would start a rumor, which it did—which was a bad thing to have said about anyone—and trying to stop that, I wrote this letter dated May 26, 1957, and if it is proper I would like to read just an excerpt of this for the record. It is addressed to Harold Bowman with copies to Dr. John Clark, Dr. Wilkinson and Dr. Scott Smith:

"I am also sorry that I have not had time to work out a resolution regarding the problems which I brought up at the meeting a week or two ago, but have been so busy preparing a paper on mitral insufficiency and a report on tetralogy of Fallot that I have not gotten around to doing it. However, I would like to state that the agenda which you have prepared is most certainly misleading, since it indicates that I am interested in limiting certain doctors from the proposed medical school hospital. I can't imagine how my discussion got twisted around in such a manner as to end up with such a statement and I would appreciate it very much if you would let the delegates know that that was not my intention in any way. My recommendation was that the House of Delegates ask the powers that be at the University of Utah Medical School to survey the needs of this area and the State in the various fields of medical practice so that if our educational policies, both here and nationally, are out of balance causing an excessive number of specialists in any or all fields to be produced, that this policy, at the medical school level, might be revised. If anyone got the idea that I was trying to rule out any individual after they had completed their education in chest surgery or any other specialty, it most certainly was a wrong interpretation of my thoughts."

Well that was read apparently at the next meeting in my absence and apparently tabled, and that was announced at Moreau Hall at the following County Society meeting, so the rumor still persisted.

I would simply like to restate my position on this matter and it can be summarized rather simply:

First, that I am not in favor of limiting or excluding trained, qualified chest surgeons from entering the field of thoracic surgery in this or any other area after they have completed their training.

Second, that I am very much interested in guiding young men and women at the beginning of their medical training into fields of practice where there is a true need for their services, which will be a beginning in the solving of the problem of the disproportion between the generalists and the specialists.

Doctor McAllister: Reference Committee No. 1 after some discussion with members of the Council and other people, felt that we would like to propose a change in the organization, in that we would like to elect a Speaker and Vice-Speaker, which would require a change in Article IX, as provided in Article XIII for amendments, since it does change the basic organization of the Association. The resolution would read—the resolution would be presented to the House in order that it might be voted into effect next year:

"BE IT RESOLVED, a Speaker and Vice-Speaker shall be elected annually, the latter to act in the absence of the Speaker. The Speaker will automatically be a member of the Council. His duties will be substantially comparable to those of the Speaker of the American Medical Association."

I so move.

President Davis: We have got kind of an impasse here possibly. We passed this indicating our desire to have this sort of organization. Rather than trying to work out the mechanics of it right at this time, it might be well to let this be referred to our Constitution and By-Laws Committee, and I think that perhaps in a smaller group we can come up with something that will be acceptable to the House of Delegates.

Dr. Edward R. McKay: I so move. (Second.) (Motion carried unanimously.)

Doctor Child: I am sorry, gentlemen, to prolong this, but I do think we need a Hoover Commission to study our committees in the State Association. And I would make a motion that the House of Delegates direct our Council to study the special committees and standing committees that we have and present recommendations to this House at the next meeting as to which committees to abolish or consolidate or instigate and so forth. (Second.) (Motion carried unanimously.)

*Journal report*

President Davis: It is now my pleasure to

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Emery L. Gray, General Manager



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introduce Mr. Harvey Sethman, the Executive Secretary of the Colorado State Medical Association and the Managing Editor of the Rocky Mountain Medical Journal. Mr. Sethman gives us his annual report on the affairs of the Rocky Mountain Medical Journal.

Mr. Sethman: Our mutual Rocky Mountain Medical Journal is in excellent condition. Advertising income during the last full fiscal year (September 1, 1956, to August 31, 1957) increased about 30 per cent, whereas we had predicted that advertising volume increase only slightly during this past fiscal year, as you who have served in the previous House of Delegates will recall. A part of the increase in income has been due to increased advertising rates which our Journal was accorded because of its growing circulation.

Although final figures for the year are not now available because our retained Certified Public Accountants are in the process of auditing the books, I estimate that we will add another \$2,500.00 to the Journal's reserve. As of September 1, 1956, this figure was \$2,474.46. With the addition of the \$2,500.00 you can see that we will have almost \$5,000.00 in this reserve account. Our goal eventually is to build a reserve sufficient to publish the Journal for even a year without income, should we ever face a "rainy day" as bad as that.

As of now we are operating well "in the black" and with your cooperation will continue to do so, in spite of the fact that all printing costs for labor and materials have continued their spiral upward. Added to this is the ever-increasing possibility that Congress will raise the mailing rates of all journals like ours in view of the fact the public is demanding that the Post Office operate on a pay-its-own-way basis. The advertising increase also permitted publishing a larger Journal this year. For the fiscal year from September, 1956, to August, 1957, inclusive, the Journal has published 1,330 pages compared to 1,188 pages during the preceding year. A total of seventy-seven scientific articles were published this year compared to fifty-nine published the preceding year. The Journal's total circulation is still slowly increasing at the rate of almost 200 a year and now stands at 4,700.

I am happy to report that our five state medical societies participating in the Journal need fear no increase in subscription rates in the foreseeable future. We are proud of the fact that our publication has not increased its subscription rates to members since 1926 and so far as we are informed, it is the only periodical, locally or nationally, that has held the line on subscription rates for thirty-one years. Most publications as you probably know have quadrupled their rates.

Our Editorial Board at its meeting last February 21, agreed to retain a design consultant for the purpose of recommending changes in the Journal typography and format. Hoflund-Schmidt Typographical Service was retained for this purpose. This firm of experts has recommended a series of comparatively minor changes in the Journal's typography to improve the general appearance and readability. As rapidly as possible these recommendations are being put into effect and all changes will have been completed by January 1. The October issue, in particular, will contain several of these changes and so I urge you to give it your special attention. Our mutual publication cannot consistently be of interest to its subscribers unless we can include scientific articles and news items of individual state interest. We need the help of all of you to this end. Please encourage your colleagues to submit concise articles of highly scientific quality, and news of your local societies and auxiliaries, to the Utah Editors of the Journal, Dr. Richard Middleton and Mr. Harold Bowman.

The officers of the Colorado State Medical Society join me in wishing you a most successful year and a most successful meeting, which you evidently are already having. Our President will be able to do that much more effectively than I when he arrives late today. He should be here now, but his plane was late.

#### *Vote of appreciation*

Doctor Robinson: I would like to call for a resolution thanking our retiring officers and the committee chairmen and our Executive Secretary, Mr. Bowman, as well as our legal counsel, Mr. Aadnesen, for the fine work and job that they have done this year. (Second.)



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President Davis: Thank you, Tom. I appreciate your sentiments and I appreciate the indulgence of all the members of this fine organization. We have had lots of troubles, we have a lot of differences of opinion. But I think when you understand that medicine represents about the last frontier of rugged individualism existing in the world today, or in this country today, you can readily understand why all you have to do is have two doctors and you have an argument or a disagreement. I think they are probably more that way than attorneys are.

It has been a pleasure to serve you as your President, and I would like now to officially turn this gavel over to Dr. Reed Farnsworth. He has my sincere best wishes, he has all my cooperation, and he has my condolences. It is going to be difficult, but I think the Association has in Dr. Farnsworth shoulders that are large enough to carry it. Reed, it is all yours. (Delegates stand and applaud.)

President Farnsworth: Thank you, very much, gentlemen. It becomes my first official duty, Dr. Davis, on behalf of the House of Delegates and the Council of the Utah State Medical Association to offer you this little piece of paper upon which is an award of merit and testimonial of our appreciation to you for your services. It is little reward for the many hours I am sure you have spent in the frustrations about this rugged individualism we have all seen here today. It is not to be considered however as a graduation diploma or release from duty because we are going to depend upon you very much more perhaps next year than you may anticipate.

I am informed by Dr. Davis that we need a motion as to the location of our forthcoming House of Delegates meeting when it is called by the Council.

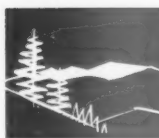
Doctor Davis: I move that it be held in Salt Lake City. (Second.) (Dr. Davis' motion carried unanimously.)

(Meeting adjourned 5:25 p.m., Thursday, September 5, 1957.)



"First, we must learn to accept him and love him for what he is — a brat."

1204



COLORADO

## Colorado Association of Medical Assistants

The CAMA has been officially incorporated and held its first annual meeting at the Shirley-Savoy Hotel, September 25-26, 1957.

Officers elected at the business meeting on September 25 were: Mrs. Gertrude Ashton, Pueblo, President; Miss Phyllis Shockney, Colorado Springs, President-elect; Miss Jackie Skubie, Denver, Recording Secretary; Mrs. Goldia M. Robbins, Corresponding Secretary; Miss Helen Coffin, Boulder, Treasurer. Retiring President, Mrs. Jane Kellar, was thanked for her hard work during the past year.

At the luncheon meeting held on September 26, guest speakers included Dr. M. C. Eddy, member of the Advisory Council to the American Association of Medical Assistants; Mr. Oliver Ebel, National Legal Advisor, and Mr. Donald Finnie, Mountain States Telephone and Telegraph Co.

At the present time chapters of the State Association exist in Denver, Pueblo and Colorado Springs.

The Colorado State Medical Society has appointed a Medical Advisory Committee to the CAMA, consisting of Drs. F. G. McCabe, Boulder; William R. Coppinger, Denver, and Gerald H. Smith, Colorado Springs.

## Obituary

GEORGE H. LORD

George Hammond Lord, M.D., widely-known Aurora physician and surgeon and civic leader, died on September 10, 1957, after an illness of several months. He was born in Como, Colorado, on September 24, 1910, attended school in Trinidad, Colorado, and the University of Nebraska Medical School, following which he served an internship at Presbyterian Hospital in Denver, being admitted to practice in 1936. In 1938 he started general practice in Aurora. During World War II he served as a medical officer in the African and Italian campaigns, winning the Legion of Merit.

He was a member of Aurora Blue Lodge, A. F. & A. M. No. 156, and was instrumental in planning the building of the Aurora Masonic Temple. He was a member of the board of the Order of Rainbow for Girls, and for the past seven years had served as "Rainbow Dad." He was a past patron of No. 125, Order of Eastern Star. For years Dr. Lord acted as physician for the sports programs of the Aurora High School.

Surviving are his wife, Mrs. Lois Lord; his mother, Mrs. Stella Lord; a daughter, Georgia Louise Lord, a student at Colorado State College at Greeley; and a son, Edward Lee Lord, attending the University of Colorado.

ROCKY MOUNTAIN MEDICAL JOURNAL



## PROCEEDINGS

### Abstract of Minutes\*

#### House of Delegates of the Colorado State Medical Society

Eighty-Seventh Annual Session  
September 24, 25, 26, and 27, 1957  
Shirley-Savoy Hotel, Denver, Colorado

#### FIRST MEETING

Tuesday, September 24, 1957

Vice Speaker Frank B. McGlone, M.D., Denver, called the House to order at 10:00 a.m., and at the request of Speaker Carl W. Swartz, M.D., Pueblo, presided until after Dr. Swartz had given his Speaker's Address. Dr. C. C. Wiley, Chairman of the Committee on Constitution, By-Laws and Credentials, presented the Committee's Report as printed in the House of Delegates Handbook and amended it:

With reference to Pueblo County Medical Society: Recommended the seating of Dr. Eugene Ley to replace Delegate Dr. Ted Miller and Dr. George Unfug to replace Delegate Dr. H. Harper Kerr.

With reference to Otero County Medical Society: Recommended the seating of Dr. Raymond T. Shima, of Rocky Ford, as substitute Alternate for Dr. L. S. Sampson.

With reference to San Juan Medical Society: Recommended the seating of Dr. R. W. Watson, of Dolores, as substitute Alternate for Dr. E. G. Merritt.

With reference to Washington-Yuma: Stated that Dr. C. J. Bennett was no longer Alternate because of his retirement from the practice of medicine and had been replaced by Dr. J. G. Hedrick, of Wray.

Sixty-two (before adjournment revised to seventy-nine) accredited Delegates (more than a quorum) answered roll call.

\*Condensed from the shorthand and sound-recorded record of H. E. Dennis, Certified Shorthand Reporter. Reports referred to but not reproduced herein were distributed to all members of the House of Delegates at the 87th Annual Session, in the printed "House of Delegates Handbook," or were distributed to all members of the House in mimeographed form. Copies of all such reports are on file in the Executive Office of the Society, and with the Secretary of each Component Society, available for study by any member of the Society.

On motion the printed report of the Credentials Committee, as amended, was accepted.

#### Address by Speaker

Vice Speaker McGlone introduced Speaker Swartz.

**SPEAKER SWARTZ:** "We are meeting here this morning at the opening session of this 87th Annual Session of the Colorado State Medical Society. It is our job to review the reports of the many committees and officers that this House has duly elected and appointed to carry on the business of running this State Society for this year. May I remind you that it is getting to be big business and that these reports represent the summary of much effort and time of a relatively few men whom we have detailed to help organize and carry out the work and policies of the Society.

"Let us now hear these reports and take them to our reference committees for study and final decision. Perhaps this work can be done and reported tomorrow, and if so we can avoid having a third meeting on Thursday.

"There are a few changes in the personnel of the reference committees. On Legislation and Public Relations, Eugene Ley will replace Ted Miller. On Professional Relations, Dr. Farley will replace Dr. Kerr and Dr. Sears will replace Warren Tucker."

A motion for the adoption of the Speaker's recommendations regarding reference committees, and approval of his address as a whole, carried without dissent.

Speaker Swartz then assumed the chair.

On motion regularly seconded and carried without dissent, Minutes of the Interim Session of the House, held February 19 to 21, 1957, at Denver, Colorado, as published in abstract in the April, 1957, issue of the Rocky Mountain Medical Journal, beginning on page 368, were adopted without correction.

Speaker Swartz referred all reports of the Board of Trustees, as supplemented (see below) by Dr. George R. Buck, President and Chairman of the Board of Trustees, verbally and by previously-mimeographed supplemental reports, to the Reference Committee on Board of Trustees and Executive Office.

#### Supplemental report of the Board of Trustees

Dr. Buck reported as follows:

"The Report of the Board of Trustees is published in your Handbook. At each seat in this House there is a Supplemental Report from the Board of Trustees which constitutes the audit by our firm of certified public accountants. The Board desires to call your attention to this audit. Through careful management the Society has enjoyed a very successful financial year."

Speaker Swartz reminded those present that all members of the Society, as well as all Dele-

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gates, were invited to appear before any reference committee to present their views.

President Buck presented nominations on behalf of the Board of Trustees as follows:

CITATION  
of

FRANK H. ZIMMERMAN, M.D.  
Dedicated Public Servant, Educator, Hospital  
Administrator and Physician.

Rare is the personality, even among physicians, who can serve as superintendent of a state mental hospital for almost thirty years and retain his own equilibrium and a sound sense of medical, moral, and social values. Rarer still is the physician who can do not only that but who can in addition successfully organize and develop modern postgraduate medical education and, at the same time, gradually but surely change the whole philosophy of a huge state institution from that of mere custody of the legally insane to that of modern therapy and rehabilitation for the victims of mental illness.

Such a man, not only exceptionally rare but perhaps unique, is Frank H. Zimmerman, M.D., of Pueblo, Colorado.

He has served the people and the medical profession of Colorado at the Colorado State Hospital in Pueblo since July, 1923, except for one year when he was medical director of Mount Airy Sanitarium in Denver. He became Assistant Superintendent of the State Hospital in 1927, Acting Superintendent in 1928, and has been Superintendent since January 7, 1931. Under his superintendency, the hospital's census has grown from 2,700 to 5,700. But size of the institution is not the measure of Doctor Zimmerman's public service. It is only a measure of the difficulties he has had to overcome. His contribution to the advancement of the science and art of medicine is in the change in character of that hospital which he inspired and which, through his inspiration of many others including successive governors and legislatures of Colorado and leaders in medical education, has become increasingly more apparent in recent years. And his further contribution has been his advancement of medical and allied education through the establishment of a total of fifty-one residences at the hospital, not only in psychiatry but also in medicine, surgery, and pathology, plus establishment of accredited training programs for laboratory technicians, x-ray technicians, and dietitians.

These facts appear more than sufficient to justify special honor to Doctor Zimmerman at the hands of his colleagues. But let it also be recorded that he has throughout these same years served his county and state medical societies, and many organizations of the psychiatric specialty, giving of his time and knowledge and energy without stint whenever requested. Committees too numerous to mention have profited by his membership or chairmanship, and he has served with distinction in many offices of great trust including the Presidency of his County Medical Society and of the Colorado Neuropsychiatric Association.

The Board of Trustees hereby nominates to the House of Delegates the name of Frank H. Zimmerman, M.D., for the Society's Certificate of Service.

BOARD OF TRUSTEES, by  
George R. Buck, M.D., President

ATTEST:  
Harvey T. Sethman, Executive Secretary,  
September 24, 1957.

CITATION  
of

SHELDON W. PETERSON  
Distinguished Citizen, Editor, and Health Worker.  
Colorado incurred a heavy loss last summer when Sheldon W. Peterson moved to Minneapolis to accept a promotion in the radio and television organization of his employer, Time, Incorporated.

For ten years preceding his departure Mr. Peterson had directed the news and special events department of Stations KLZ and KLZ-TV in Denver. Throughout that period he distinguished himself, and enhanced the already enviable reputation of his broadcasting and telecasting organization by his keen analysis of regional news, generous participation in civic affairs, and his constant interest in the development of public service programs. Colorado benefited particularly from Mr. Peterson's insight into the affairs of medicine and public health and from his quick grasp of every opportunity to inform his listening and viewing public accurately concerning the latest advances in these fields.

A native of Minnesota, Mr. Peterson graduated in Journalism from the University of Minnesota and worked five years with Minnesota newspapers before coming to Colorado and the KLZ news staff in 1939. In addition he served as acting chairman of the Journalism Department of the University of Denver in 1941 and 1942. He spent the next five years with radio stations in Chicago, but returned to KLZ in 1947 as its News Director. He is the author of many articles on radio and television news techniques which have appeared in professional journals.

Community betterment, both city and state, have been second in interest only to his principal vocation. One example is his four and one-half years on the Board of Trustees of our Colorado Blue Shield Plan. Another would be his service on committees of the Mile High United Fund and its predecessor, the Denver Community Chest. There are many more, including service on boards and committees and as an officer of press, radio, and television organizations seeking advancement of their professional and public services. In 1953 Mr. Peterson won the annual Sigma Delta Chi award as the outstanding newsmen in Colorado.

The Board of Trustees hereby nominates to the House of Delegates the name of Sheldon W. Peterson, of Minneapolis, for the Society's Certificate of Service.

BOARD OF TRUSTEES, by  
George R. Buck, M.D., President.

ATTEST:  
Harvey T. Sethman, Executive Secretary,  
September 24, 1957.

The House voted without dissent to confirm the two nominations above presented.

Dr. Herman W. Roth presented the Annual Report of the Board of Councilors as printed in the Handbook and submitted the following supplemental report. Both reports were referred to the Reference Committee on Professional Relations.

*Supplemental report of the Board of Councilors*

The second paragraph of the printed report, at the top of Page 18, refers to the appeal by Dr. Broxon to the A.M.A. Judicial Council, seeking nullification of your Board of Councilors' official Opinion on the Free Choice of Physician.

Under date of September 18, we have received the Judicial Council's decision in the form of a signed copy of a formal letter to Dr. Broxon declining to take jurisdiction over his so-called appeal. I shall quote that letter in full:

"Dear Doctor Broxon:

"The Judicial Council carefully and thoroughly reviewed all the written and oral statements presented in connection with your appeal. The Council unanimously agreed for the reasons set forth below that it was and is without jurisdiction to entertain your appeal and directed me to advise you of this fact.

"The jurisdiction of the Judicial Council is defined by the Bylaws of the Association. Under Section 19 (A) 2 original jurisdiction is limited to questions in-



volving membership; controversies under the Association's Constitution and Bylaws and its Principles of Medical Ethics to which the Association is a party; and controversies between two or more state associations or their members; and between a state association and a county society of another state association or their members.

"The Council's appellate jurisdiction is limited to questions of law and procedure in cases between a state and county society; between county societies of the same state association; between members of the American Medical Association and the county society to which members belong; and between members of different county societies of the same state association.

"Additionally, the Council has jurisdiction to interpret the Principles of Medical Ethics and the Constitution and Bylaws and Rules of the Association, and it may under certain conditions investigate general professional conditions, and make recommendations as it deems necessary to the House of Delegates.

"Nowhere is the Council granted authority to stay the implementation of a policy decision of a county society or a state association. As indicated, the Council's jurisdiction is limited to cases, or controversies. On appeal its jurisdiction is further limited to reviewing decisions of a constituted authority of the State Association.

"In your appeal the members of the Judicial Council have not found any decision nor any case or controversy as the Council understands these terms. In brief, the Council does not find that any action has been taken against you. The Council, therefore, is unable to exercise jurisdiction for the reason that there has been no controversy.

"Sincerely,  
"Edwin J. Holman"

Mr. Holman, whom many of you will meet this week since he is to be a guest speaker on our Annual Session Program, is one of the attorneys for the A.M.A. and is the Executive Secretary of the A.M.A. Judicial Council.

Both our Society and Dr. Broxon had asked the Judicial Council to rule as to whether Free Choice of Physician is, or is not, still a part of the Principles of Medical Ethics since the Principles have been re-published in much condensed form. One who reads this decision of the Judicial Council, without having attended the Chicago hearing, might feel that the Judicial Council had sidestepped an opportunity to make the requested ruling.

However, in the midst of the hearing on September 7, the Chairman of the Judicial Council, Dr. Homer Pearson of Florida, momentarily halted proceedings in order to obviate further discussion of this very question, and stated very definitely and positively that the mere omission of long paragraphs from the newly published Principles of Ethics does not remove those Principles at all. He stated that everything in the old Principles is still in the principles. He further stated that every un-repealed decision of the Judicial Council in the past is still in force.

One of those un-repealed rulings of the Judicial Council, dating back to 1927 but still in force, discusses the ethics of contract practice. It states in part as follows:

"There are certain points that may be formulated which, when present, one or more of them, definitely determine a contract to be unfair or unethical. These may be stated as follows: . . ."

(The Judicial Council then listed five points of which No. 4 follows:)

"When a reasonable degree of free choice of physicians is denied those cared for in a community where other competent physicians are readily available."

With those statements clearly before us, your representatives at the recent Chicago hearing felt confident in the ultimate rightness of any Judicial Council ruling on our current problems. We also now look forward with confidence to the semi-annual report of the Judicial Council which will be presented to the A.M.A. House of Delegates at Philadelphia in late November.

BOARD OF COUNCILORS, by  
HERMAN W. ROTH, M.D., Chairman.

Speaker Swartz introduced Dr. H. B. Anderson, President of the Wyoming State Medical Society, who was greeted with applause.

The Grievance Committee had no supplemental report to offer.

(Vice Speaker McGlone, presiding.)

Vice Speaker McGlone referred the following personal report of President George R. Buck to the Reference Committee on Board of Trustees and Executive Office.

#### Report of President

President Buck: "I supposed that I, just like every other President giving his final report to the House of Delegates, gives the report with a great feeling of relief tempered with regret; relief that the responsibility of making decisions passes from him, regret that more could not be accomplished in the year that he had the stewardship.

"This job certainly is not one of individual ability; it is dependent upon you, dependent upon the committees that you form, dependent upon the Board of Trustees and the thinking they give to their Society problems and to a not insignificant degree is dependent upon your Executive Office. I certainly know that I, as President, could not have given you a semblance of a half-way decent administration had it not been for the cooperative effort of the Executive Office, particularly Mr. Sethman, Mr. Pompelli, Mrs. Blackburn, Miss Pullen, and Mrs. Palmer. Your committees as a whole have worked exceedingly well this year. I would like officially to mention the Public Policy Committee, the Legislative Committee, the Medicolegal Committee, and your Public Health Committees.

"I trust that the membership will give Dr. Milligan the same wholehearted support that it has been my privilege to receive from you. I would like to discuss the role of labor in relationships of your Society.

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Certainly one would be naive were he unable to see the handwriting on the wall, and one would be most negligent if he did not call attention of this House to this same handwriting.

"This year, effective May 1, your Board of Councilors handed down an Opinion. That Opinion took a tremendous amount of courage to write. It is very easy to beg this issue. The Opinion is of great importance, but the most important thing will occur during this year under Dr. Milligan's stewardship, and that is the testing of that Opinion.

"Last June a number of us were privileged to appear before a reference committee of the A.M.A. House of Delegates. Dr. Warren Draper, the Medical Administrator of the UMWA Welfare and Retirement Fund, also appeared before that reference committee and made certain statements that many of us felt, — Well, if they were not lies they were at least only half truths. I challenged his statements. One of the statements made was that 'Societies who denied membership to subsidized physicians under the UMWA would be the target of legal action.'

"I accepted that challenge for the Colorado State Medical Society. I informed Dr. Draper that we regretted the necessity of legal action, but that we did not fear it. I felt that in honor nothing else could be done. That means the possibility of an assessment this year, because the finest legal talent available in the market will be purchased by the UMW. Subsequent to the A.M.A. meeting, some of you may have noticed there was a meeting of health administrators of AFL-CIO, in which they stated that a war chest was being set up to 'take care' of the troublesome areas, mainly Colorado, Illinois, and Pennsylvania. So we are faced not only with the challenge of the UMW, but with the largest labor organization in the world.

"At the hearing of the Judicial Council September 7, it was quite significant that the counsel for Dr. Broxon was a man by the name of Hanson from St. Paul, Minnesota. I don't know how many of you men know attorneys in St. Paul. I don't know any. Mr. Hanson also bears the reputation of having been the author of a number of papers on the value of panel practice of medicine. So it, I believe, is a reasonable inference that the counsel for Broxon was supplied by a labor organization. So you see this is not an easy problem with which you are faced. You must now decide whether or not in the future medicine is going to be practiced on the premise that a physician may render his services to an individual, and the corollary, that the patient may select a physician of his choice. That choice is up to you. That choice will be made, undoubtedly, in a legal battle this year.

"I feel that the Board of Councilors has no choice but to exercise disciplinary action against the individuals who may flout the ruling of the Board of Councilors. Just as soon as the disciplinary action is invoked, gentlemen, we are faced with a suit. I believe, furthermore, from the indication of the counsel for Broxon, that this suit will wind up in the Supreme Court of the United States, because it is definitely going to be attacked along the lines of 'anti-trust.' So much for the threat by labor.

"Again, I implore you to wholeheartedly support your Board of Councilors because they are going to need support as they have never had it before. With this, of course, is coming the possibility of further assessment.

"The Finance Committee of the Board of Trustees recommends that there be no reduction in dues this year. The surplus this year is not being returned to the general fund. It is being kept segregated so that it may be a shock fund with which to employ the best possible legal counsel.

"There is one other thing I should like to discuss with you and that is Empire Casualty Company. This is one of the things on which I approach you with a feeling of regret. Certainly the idea of a self-owned insurance company to purvey malpractice insurance

to the membership is not original with me. I claim credit for only one portion of the idea, and that is the limitation of the ownership of stock to one share per member. Knowing myself and knowing my colleagues as I do, I know that we are intensely jealous of one another in areas of finance, in areas of influence; therefore, I felt that the fair thing, in a democratic manner, would be to have one share of stock to each member.

"You may have wondered why there were only five directors of this company. Of course, the directorate will be elected by the shareholders; but it would be too cumbersome to get directors' meetings together if there were a large board at the outset. Our thinking on this, in order to secure adequate geographic representation of the population, was to have a directorate consisting of fifteen members, seven from Denver and one each from the eight councilor districts outside of Denver. To date only 278 shares of stock have been sold. These have come in in the ratio of two outside of Denver to one in Denver. I think the reason possibly for the lack of response from the Denver area is one of confusion. Unknown to your Board of Trustees, the Denver Society's Insurance Committee and the State Society's Insurance Committee was negotiating with an insurance agency in Denver in an attempt to solve this problem of increasing malpractice costs. The prime insurer was to have been City General Insurance Company, Ltd., of London. An inquiry was directed to the Insurance Commissioner of the State of Colorado, who has the final authority on who may sell or who may write insurance, how much may be charged for that insurance, etc.; and I have a signed document, signed by Mr. Beery, stating that due to statutory limitations City General could not write malpractice insurance in this state.

"The Board of Directors of Empire Casualty attempted three different times to gain an audience with the committee of the Denver Society through its chairman. Direct contact was made with the chairman. To date we have been unable to gain that audience. The Denver Council of Delegates have reported that they would have a recommendation when questions as to who could write and so forth were finalized. I do not believe they have had an opportunity to meet and confer upon that; but certainly the ruling of the Insurance Commissioner should be ample evidence of how final the question can be as regards this one company. Empire Casualty will have a Board of Directors meeting tomorrow night. I do not want to burden this House with details of the operation of the company. I might say here that a re-insurance treaty has been entered into with the underwriters at Lloyds to absorb all liability in excess of \$5,000 on any claim; so you needn't fear the ability of Empire Casualty to keep its head above water.

"I very much hope that there may be a greater response in the purchase of stock during this session. The indication that will be given us as directors today and tomorrow will pretty much indicate whether or not the directorate will feel like going along with this effort. We feel that the time has come to determine whether or not physicians of Colorado want to engage in this attempt.

"We know, after visiting the component societies and observing the enthusiasm shown there, that the thing should be able to go. Other states are watching us with a great deal of interest. This idea does have some national import. But if you want this thing to go, I plead with you to go into the Spruce Room over here and make out your application for stock. Blank checks are available for you there. Now, if you don't want it to go, stay away, and I think tomorrow evening we will probably button the show up and return all of the money that has been paid in."

Constitutional Secretary James M. Perkins, Denver, submitted the following:

"Mr. Speaker, I have no formal report. I just

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want to make a few remarks. As you have heard, from what Dr. Buck has said, you realize how many things are going to be coming up in reference committees. Year after year and time after time I have pleaded with you to attend the reference committees. I want to do that again at this time. And, secondly, I want to thank you for the opportunity of having served you as your Secretary. I am willing to serve you always in any capacity you wish."

No supplemental reports were offered by the Delegates to the A.M.A., the Foundation Advocate, or the Executive Secretary.

#### *Reports of standing committees*

A mimeographed supplemental report, relating to A.M.A. Service Membership, was submitted by the Committee on Constitution, By-Laws and Credentials and was re-referred to the same committee as a reference committee.

The following reports of standing committees were referred as indicated in the Handbook without supplement:

Committee on Health Education and its subcommittee on School Health; Library and Medical Literature; Medical Education and Hospitals; Subcommittee on Medical Student Loan Fund; Medical Service.

Dr. Samuel P. Newman presented the following supplemental report which was referred to the Reference Committee on Professional Relations:

Once before I can remember that a committee chairman reported that his committee did not meet during the year and I can remember what the reference committee said about him. This committee has not met this year but the work has continued on. Early in the year a number of letters were prepared to answer questions submitted by doctors in other states and other areas who wanted to come to Colorado to practice. And there have been almost hundreds of letters written during this year to those physicians.

Secondly, there have been various communities come to the State Medical Society to get physicians. Efforts have been made by the chairman of the committee and also by the Executive Office to bring together physicians who were looking for places and places which were looking for physicians.

In addition to all of those letters that have been written, I have sat on the telephone and talked sometimes as long as a half-hour with the people from these communities and also with doctors. So that the committee, even though it hasn't met, has at least had some representation.

I have no further report to make, and I do have a list of the letters to give to the Executive Secretary to present to the Reference Committee so they may decide what they would like to do about it.

Speaker Swartz continued to refer reports as follows: Subcommittee on Emergency Medical Services, Subcommittee on Hospital-Professional

Relations, Subcommittee on Indigent Medical Services, Subcommittee on Intraprofessional Insurance Problems, Subcommittee on Medical Care of Veterans, Subcommittee on Physician-Nurse Relations, Subcommittee on Prepayment Services (to be presented later), Medicolegal Committee.

#### *Supplemental reports of Committee on Public Health*

Dr. John Zarit, Chairman, presented the following supplemental reports of the Committee on Public Health, which were by Speaker Swartz referred to the Reference Committee on Public Health, except as otherwise noted in the Handbook:

A special meeting of your Public Health Committee was held on August 23, 1957. Your Chairman explained that increasing newspaper publicity concerning Asian influenza together with the meeting that had been held with the United States Public Health Service and the American Medical Association indicated a need for action by our Public Health Committee. Your Chairman reviewed the action of the meeting held under the auspices of the United States Public Health Service in Washington on August 14, 1957, at which the A.M.A. was represented.

The Surgeon General of the United States Public Health Service requested that the State Health Departments conduct an educational campaign toward voluntary vaccination of all persons whose activities are essential to the community. Your Committee approved that Bulletin Number 1, prepared by The Colorado State Health Department and sent to the officers of the constituent societies, be sent to every physician practicing in Colorado. Your Chairman, with consent of the committee, directed Dr. Cleere, Chairman of the Subcommittee on Emergency Medical Service, to alert that committee to the need for coordinating emergency service should an epidemic develop. A technical advisory committee to the Colorado Health Department was organized on September 5, 1957, similar to the technical advisory committee that has been serving on polio vaccine. This advisory committee has recommended that Bulletin Number 2, to be mailed to all physicians, which I am sure all of you have received within the last few days, which will stress dosage, especially in children, priorities, and spell out in detail the methods of obtaining throat cultures and handling blood specimens for laboratory diagnosis. Subcommittee on Poliomyelitis Vaccination:

Since the beginning of the polio vaccine program in 1954 enough vaccine has been supplied in Colorado to get three shots in 96.9 per cent of the population under the age of 20, or another appraisal would be to say that of the Colorado population up to 40 years of age enough vaccine has been received to completely vaccinate 54.8 per cent of the population to age 40. This is the best record of any state with the exception of Vermont, Utah, and Massachusetts.

Our challenge now is to continue in each local medical society our efforts to protect an even larger number of our population under 40 years of age.

During the year continual emphasis must be placed on patients getting the three injections, given at proper intervals, so that by next polio season we

continued on 1274



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## Organization cont. from 1210

will have as good or an even better record than we have had this mild polio year of 1957.

Enough vaccine is available, plan to vaccinate now, don't wait for paralytic polio to strike.

Dr. Zarit continued as follows:

"Since your Board of Trustees unanimously approved the intent of the American Medical Association that the poliomyelitis vaccination program be carried out on local levels, your President appointed a Poliomyelitis Vaccination Committee.

"Since then the American Medical Association has been cooperating with the United States Public Health Service on vaccinating the public against Asian influenza; therefore your Public Health Committee, in order to accelerate efficiency in these programs as well as others that may arise in the future, recommends that a Subcommittee on Immunization under the Public Health Committee be established, this committee to replace the Poliomyelitis Vaccination Committee.

"In addition to that, all of you have received a mimeographed copy of a report by Henry E. McGarvey, M.D., Surgeon, Westchester County Parkway Police, entitled, 'The Empire State's Solution of the Drinking-Driver Problem.' This is merely more information for the reference committee so they may better understand the resolution submitted by the Automotive Safety Subcommittee under Public Health."

There were no supplemental reports on the following subcommittees under Public Health, and they were referred by Speaker Swartz: Aging, Alcoholism and Drug Addiction, Automotive Safety, Cancer Control, Cancer Conference, Crippled Children, Industrial Health, Maternal and Child Health, Mental Health, Rehabilitation, Rural Health, Sanitation, Tuberculosis Control.

### Supplemental report of Public Policy Committee

Chairman Robert P. Harvey presented the following supplemental report of the Public Policy Committee which was referred to the Reference Committee on Legislation and Public Relations, except as below shown.

Dr. Harvey: "The Public Policy Committee would like to call the Delegates' attention especially to two items as printed in the Handbook, the first being paragraph 3 under Legislation, page 37; the second at the bottom of page 38 under Free Choice of Physician which states, 'Your Committee requests that a proper mechanism be promptly established to assist the Board in its investigations and in implementing its decision.' These are believed to be most vital.

"In addition to the material contained in the Handbook, the following additional items have been recently considered by your Committee:

"1. The report of your representative to the recent Public Relations Institute meeting held in Chicago has been reviewed. Acting upon material therein presented your Public Policy Committee recommends that open meetings of our House of Delegates be declared open to all certified press personnel. Information was also received that there was considerable interest expressed in personal conversations with physicians and executives from all sections of the United States concerning Colorado's Empire Casualty Company; our Society's efforts are being watched very carefully in this regard.

"2. A proposal of the Colorado Heart Association for the prophylactic care of rheumatic heart disease in which a mechanism for furnishing oral penicillin to the patient by his private physicians and pharmacists was approved.

"3. The report of the Maternal and Child Health Committee concerning a personal health record booklet was approved.

"4. The report of the Subcommittee on Automotive Safety has been reviewed and wholeheartedly endorsed by your Public Policy Committee. Three items were of special importance:

"a. The Public Policy Committee recommends to the Board of Trustees that a letter of welcome be forwarded to the Roberts Committee of Congress which we have been informed intends to hold hearings in Denver sometime in November. We recommend that the facilities of the Colorado State Medical Society be placed at this Committee's disposal.

"b. The resolution concerning implied consent legislation as recommended by the Automotive Safety Committee was endorsed.

"c. The Public Policy Committee concurs in the recommendation of the Automotive Safety Committee of favoring legislation making it illegal to operate motor vehicles with a blood alcohol level of greater than .05 per cent."

Speaker Swartz: "The supplemental report of the Public Policy Committee will be referred to the Reference Committee on Legislation and Public Relations, except for the portion on the free choice of physician, which will go to the Reference Committee on Professional Relations."

The following committees had no supplemental reports and were referred as published: Rocky Mountain Medical Conference, Scientific Program.

### Special committees

Adjudication Committee, State Compensation Insurance Fund, American Medical Education Foundation Committee; referred as noted in the Handbook.

Chairman Frank B. McGlone presented the following supplemental report of the American Medical Education Foundation Committee, which was by Speaker Swartz referred to the Reference Committee on Miscellaneous Business:

### A.M.E.F. Committee

Dr. McGlone: "The American Medical Education Foundation Committee met this morning immediately

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preceding this meeting. There was considerable discussion about the principles and results of the previous efforts in relation to the A.M.E.F. Last year the members of the State Society contributed \$23,190; 713 out of a little over 1,500 doctors contributed, for an average of about a little over \$32 per man. To July 1st of this year (1957) only 422 doctors had contributed a total of \$11,888, a little less than half of last year's contribution.

"In looking over the statistics of last year the following communities contributed, the number of doctors being named first and the number contributing being named second: 14 doctors and 14 contributing; 49 doctors, 4 contributing; 131, 24 doctors contributing; 97, 14 contributing; 809, 501 contributing; 5, 5 contributing.

"Most of the contributions averaged \$30 to \$40. A few communities averaged \$10.

"It is obvious from these statistics that the contributions depend to some extent upon the organization within the community and the efforts of the committee.

"This year already Arapahoe County, which now numbers sixty-five has sixty-one members contributing, and a definite no answer from the other four, with an average contribution of some \$38. This was accomplished with a great deal of effort by a large number of men working.

"The Denver Society knows very well all the effort that went into last year's campaign and that is going into this year's campaign in order to get a little over half the doctors to contribute.

"This committee, therefore, after considerable thought and discussion, and this is something that has come up year after year, went on record as making the following resolutions:

"1. Resolved, that we ask the House to reaffirm their continued support of A.M.E.F.; and

"2. That if this support is re-affirmed, that we

recommend a \$20 assessment to A.M.E.F. as a living endowment by the State Medical Society to the medical schools."

(After delivering the above supplemental report, Dr. McGlone was asked to have his supplemental report typed for presentation to the reference committee, and the following is a true copy of what was typed following Dr. McGlone's dictation, which version, however, had not been checked by Dr. McGlone at the time the Reporter received the copy, and up to the time of typing these proceedings:

#### (Supplemental Report of the

American Medical Education Foundation Committee

("The American Medical Education Foundation Committee met on Tuesday morning, September 24. A long discussion of the past records of contributions to AMEF was held. It was pointed out that during 1956, 713 doctors contributed \$23,190 and that through July 1, 1957, 422 doctors had contributed \$11,888. It is obvious that the contributions for 1957 will fall below the previous contributions. This decline has occurred despite a great deal of effort on the part of many physicians.

("It was pointed out that in some communities almost 100 per cent of the physicians contributed and in some the contributions were as low as 2 per cent of the total number of physicians. It was felt, therefore, that a more reasonable way of raising money for the American Medical Education Foundation could be accomplished. The Committee therefore proposes the following two resolutions:

("1. Resolve, that we ask the House of Delegates to reaffirm and continue support of the principles of the American Medical Education Foundation;

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"2. If these principles are supported, it is recommended that a \$20.00 assessment be added to the dues of each physician to be given to A.M.E.F. annually as a living endowment to medical education.

("AMERICAN MEDICAL EDUCATION FOUNDATION COMMITTEE, By

("FRANK B. McGLONE, M.D., Chairman.)

Speaker Swartz proceeded to refer the following reports which were not supplemented: Hospital Accreditation, Advisory Committee to the Medical Assistants Association, Membership Classification, and Military Affairs.

#### *Reports of Special Representatives*

Speaker Swartz referred the following reports of committees which were not supplemented: Representatives to the Adult Education Council and Representatives to the Advisory Committee of the Public Welfare Department.

Speaker Swartz: I will ask Mr. Sethman to read some of the supplements on his desk.

#### *Report of the Subcommittee of the Medical Service Committee, on Intraprofessional Insurance Problems*

The following supplemental report of the Subcommittee on Intraprofessional Insurance Problems, read by Mr. Sethman in the absence of Chairman Kester V. Maul, was referred by Speaker Swartz to the Reference Committee on Legislation and Public Relations.

"Your Committee has met four times during the year and there have been numerous unofficial conferences between members of the committee and with the insurance representatives in an attempt to secure a professional liability contract at lower rates than those presently being offered by bureau companies. Negotiations have been carried on through various insurance companies. To date no bureau company has shown an interest for a group professional liability policy that can be offered to the physicians; therefore we approached the foreign markets for quotations under the Surplus Line Act.

"A London company was interested enough to submit a proposal as follows:

"Type of Policy: The agency would prefer a master policy for the Society with certificate for members, but it could be issued on an individual-member policy basis.

"Relation with Medicolegal Committee: In case of threatened suit, this company will work with our committee in order to determine the proper course of action.

"Number of Persons Required: First year, no spe-

cific quota. The agents hope that at the end of the first year 1,000 members will be insured under this plan. This would put them in a good position to negotiate for lower rates the following year.

"On June 27, 1957, two members of the committee met with the Board of Trustees with the request that the members of the Society be sent information outlining the proposal relative to the professional liability insurance contract we were negotiating. The Board of Trustees requested that the committee delay any such action for a minimum period of six weeks.

"There were a few points in the contract which we wanted changed. We were negotiating on these points. The final contract would then have to have the approval of the State Insurance Commissioner before it could be offered for sale. We had hoped to have this accomplished by now.

"Before the contract was ever submitted to the Insurance Commissioner for his consideration, we were informed through our insurance contacts that at the present time the Insurance Commissioner felt there was no justification for us to consider this plan or a reduction in present rates.

"A letter was sent to the Insurance Commissioner asking what type of information would be necessary to enable him to consider a reduction in premium rates in Colorado.

"The Insurance Commissioner replied and discussed several aspects of the problem and pointed out the insurance companies' reasons for their reluctance in reducing present rates. Some of these reasons appear valid; however, it seems that the companies are considering the national trend rather than the experience in Colorado.

"Mr. Beery, the Colorado State Insurance Commissioner, offered the following comment: 'It is important that the Medical Society should be able to buy coverage in the strongest companies in the United States for the reason that the doctor might be called upon to defend a case brought by a claimant for an alleged act which might have happened ten to fifteen years before. The company that he insures with today must be one which the doctor does feel will be in existence ten to fifteen years from now, and for these reasons the situation is one in which your department must move slowly, to the end that the various medical societies are adequately protected, presently and in the future.'

"It is still hoped that a way may be found to induce the insurance companies to consider the situation in Colorado to warrant a reduction in the present insurance rates. (Signed) Kester V. Maul, M.D."

#### *Report of the Ad Hoc Committee on Ophthalmia Neonatorum*

Your committee for the consideration and recommendation of prophylaxis against Ophthalmia Neonatorum and consisting of Drs. John A. Lichty, Warren Tucker, Robert Johnston, and your Chairman, has the following recommendation to make:

The committee recommends that the present Colorado law relating to blindness in the newborn (Colorado Revised Statutes, 1953, Chapter 66, Article 6) be repealed, since the emergency which prompted its passage no longer exists.

It further recommends that the Colorado State Health Department and the Colorado State Medical Society issue a joint statement recommending the use of some form of prophylaxis in the eyes of all newborns. For infants delivered by a licensed physician, the choice of some appropriate prophylactic material should be left to the discretion of the physician performing the delivery. In the case of all other deliveries in Colorado, the use of silver nitrate (in the form of a fresh 1 per cent solution), or such other prophylaxis as the State Health Department shall from time to time approve, should be continued.

JOHN CHENAULT LONG, M.D., Chairman.

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The report was referred to the Reference Committee on Legislation and Public Relations.

In the absence of Dr. Tucker, Speaker Swartz requested Mr. Sethman to read the following report, which he proceeded to do until Dr. Tucker appeared, as shown by proceedings below, and the proceedings respecting this report and the minority report pertaining thereto are reported verbatim:

*Report to the House of Delegates from the Blue Shield Fee Schedule Advisory Committee*

The eleventh semi-annual meeting of the Blue Shield Fee Schedule Advisory Committee was held Monday evening, September 23, 1957, and a number of items submitted by various Specialty Groups, and Component Societies, and the Blue Shield Board of Trustees, were considered.

The following requests involving certain revisions of the Blue Shield Fee Schedule were approved unanimously:

1. Reduction of the Standard Plan allowance for "Excision of intervertebral disk with spinal fusion" when performed by one surgeon, from \$225 to \$175.

2. Adjustment of the allowance for "Excision of intervertebral disk with spinal fusion" when performed by two surgeons, to provide a total allowance of \$175 and \$300 in the Standard and Preferred Plans, respectively.

3. Reduction of the Standard Plan allowance for "Complete proctectomy, combined abdominoperineal, one or two stages" from \$225 to \$175.

4. Reduction of the Standard Plan allowance for "Blood transfusion, replacement type, RH factor" from \$50 to \$37.50.

5. Reduction of the Preferred Plan allowance for "Urethral meatotomy" from \$10 to \$5.

6. Establishment of specific Standard and Preferred Plan allowances for sixty-four procedures included in the Musculoskeletal System section of the Fee Schedule which have heretofore been on an Individual Consideration basis; and deletion of fourteen procedures deemed repetitious or superfluous, as recommended by the Orthopedic Specialty Group.

7. Adjustment of the Plan allowances for in-hospital premature infant care to provide \$25 for the first week, and \$10 for each subsequent week in the Standard Plan; and \$35 for the first week, and \$15 for each subsequent week in the Preferred Plan.

8. Provision for an additional allowance under the Preferred Plan over and above the existing benefit for in-hospital medical care of a difficult medical case. This special benefit payment is to be allowable on the basis of Individual Consideration by the Plan's Adjudication Committee upon written request of the attending physician and the submission of factual information for review.

The Advisory Committee also considered a question frequently raised by the medical profession concerning the scope of Blue Shield's benefit for combined medical and surgical care rendered by two physicians during the course of one case. Such combined care is the exception rather than the rule; however, it was noted that such cases fall into two distinct categories—the Uncomplicated Case where circumstances dictate dual care, and the Complicated Case where severity of the illness is the determining factor. Currently, no specific provision is made in the Blue Shield Participating Physician's Manual for the reporting and subsequent allocation of benefit payment in such instances.

**The Uncomplicated Case:** It is recognized and regarded as proper that the Blue Shield Plan's fee schedule allowance for any given surgical procedure is so constituted as to include not only the procedure itself, but also the pre- and postoperative care routinely associated with such surgery. However, on

occasion the circumstances of a case will be such that for one reason or another a physician other than the surgeon will assume partial or total responsibility for the normal, uncomplicated care of a surgical patient either prior to, or following, the surgery itself. As a consequence, the Fee Schedule Advisory Committee agrees that some controlled apportionment of the available fee schedule allowance is in order in such occasional cases.

**The Complicated Case:** When, because of the severity of a given case, a second physician shares the responsibility of the pre- and/or postoperative management and renders medical care over and above that usually associated with the surgery, additional Blue Shield allowance is currently provided on review by the Adjudication Committee. In such instances, the Fee Schedule Advisory Committee also agrees that apportionment of the total Plan allowance for care of a difficult case may be in order.

In considering the propriety of the apportionment principle, the Advisory Committee noted that the American Medical Association's Reference Committee on Insurance and Medical Service, in considering Resolution No. 45 presented by a New Jersey delegation, reported to the House of Delegates of the A.M.A. in 1954, that such did not constitute a violation of the principles of medical ethics as long as four conditions were met. These were that: (1) The operating surgeon certify that a second physician did in fact render service; (2) Each physician submit his own individual report; (3) Separate payments were made by the Plan to each individual physician; and (4) The Plan notify the patient of the payment made to each physician.

(Dr. Tucker entered the room.)

Mr. Sethman: "Dr. Tucker, do you not wish to continue the reading of your own report?"

Dr. Tucker: "I have been fifteen minutes looking for it in the hotel here."

Mr. Sethman: "It was delivered to me and I was told you were coming to my desk to pick it up."

Dr. Tucker: "I am sorry, I beg your indulgence. I had a messenger who was going to call me at the office in case things moved fast, and that was Dr. Harvey of the Public Policy Committee, whose report was coming up just before, so I thought I had time."

(Dr. Tucker did not read the following sentence which was in the written report: "Following its reference committee's report, the A.M.A.'s House of Delegates—as ultimate authority—approved the New Jersey resolution which dealt with the apportionment of a Blue Shield fee." He proceeded to read the following:)

Therefore, after lengthy and careful consideration of this apportionment question, the Advisory Committee voted—twenty-one to three—to recommend that the attached Supplement A provisions be included in Colorado Blue Shield's Participating Physician's Manual with the understanding that the Blue Shield staff would keep accurate record of the uncomplicated cases in which apportionment of the surgical allowance was requested and submit monthly reports to the Plan's Adjudication Committee, as well as a complete report to the Fee Schedule Advisory Committee at its meeting in February, 1958.

Dr. Tucker: "I understand, and this is aside, that there will be a minority report submitted on this question. During the discussion the legality of the procedure was seemingly discussed to the satisfaction of all by Mr. Nordlund and Dr. Unfug, and several questions were brought up. The propriety of it or whether it is an advisable thing to do, of course, is for the House of Delegates to decide, and the minority report will deal with their reaction to that."

(Dr. Tucker continued to read as follows:)

As its last order of business, the Advisory Committee discussed the Old Age Pensioners' health program now under development by the Colorado State Department of Welfare. The committee voted to approve in principle the inauguration of such a program on a

free choice of physician basis, and authorized Blue Shield to negotiate with the Welfare Department on the basis of the Standard Plan fees and benefits with such extensions as are deemed advisable by the Blue Shield Board and the Board of Trustees of the Colorado State Medical Society. Concern over the high utilization of this age group was expressed by the committee, which prompted a word of caution to the Blue Shield Board that such program should be actuarially calculated as a self-sustaining unit, and not at the expense of existing or future Blue Shield members.

Dr. Tucker: "Mr. Sethman, did you read any of this Supplement? (Conference.) Part of this is redundant, but with your permission I would like to read it because this is the area where discussion will center."

#### Supplement "A"

*Participating physician's manual instructions re: plan regulations applicable to determination and/or apportionment of allowance for combined medical and surgical care; apportionment of available surgical benefit for routine cases*

It is recognized that the circumstances of a given case may be such that for one reason or another a physician other than the attending surgeon may assume in part the normal, uncomplicated pre- and/or postoperative care of a surgical case. Therefore, when a second physician assists a first, or attending, physician in rendering concurrently any service to a surgical patient, Blue Shield's payment from the total available under this schedule of benefits for the particular surgical procedure may be apportioned by the Plan between the surgeon and such physician upon certification by the surgeon and the second physician that such concurrent service has been ren-

dered. The amount of the apportionment payable to the second physician may be up to \$35 under the Standard Plan and up to \$75 under the Preferred Plan, depending upon the surgical procedure and the available maximum benefit.

Dr. Tucker: "And then we refer, and I don't need to quote those. In other words, if the surgical allowance on the Standard Plan, for example, would be \$101 to \$125, the apportionment would be up to \$25. On the Preferred Plan, for instance, an operation calling for a surgical allowance of \$151 to \$225, the apportionment may be up to \$50."

(Dr. Tucker continued reading as follows:)

Such apportionment of available benefit shall be made under the following circumstances, as approved by the American Medical Association:

Dr. Tucker: "I think that was incorporated in what Mr. Sethman read."

(The words to which he referred are as follows:)

(1) That on certification of the operating surgeon, the scheduled amounts available for services rendered may be paid by the Plan to a physician other than the operating surgeon, provided that such other physician has properly rendered such services;

(2) That each physician submit his individual report and charges to the Plan according to the services rendered the patient;

(3) That the Plan make separate payment for the services of each physician, and

(4) That the Plan notify the patient of each payment made by the Plan.)

(Dr. Tucker read as follows:)

While the foregoing reflects the apportionable amounts which may be employed routinely, undoubtedly, on occasion they will prove unrealistic under some circumstances. For example, in fracture cases wherein only the initial, emergent care is provided by a physician at the time of the accident and all follow-

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up care and responsibility is to be assumed by a second physician, or in surgical cases wherein the operating surgeon must leave town immediately following the surgery and a second physician assumes the responsibility for all postoperative management. It may well be that authorization by the first physician of an even greater apportionment of the available allowance, will be in order. In such instances, this may be accomplished at his request and explanation, subject to review by the Plan's Adjudication Committee.

#### Apportionment of benefit for concomitant medical and surgical services for difficult cases

Dr. Tucker: "This, again is partly redundant, but for the sake of emphasis I should like to read it."

(Dr. Tucker read as follows:)

While the various allowances for surgical services are so constituted as to include not only the surgical procedures themselves, but also the pre- and post-operative care incident thereto, it is also recognized that on occasion the severity, rather than the circumstances, of a given case may be such that medical care over and above that normally anticipated, will be required. As a consequence, when necessary medical care—not constituting the normal preoperative preparation or postoperative management—is rendered by a physician other than the attending surgeon, additional benefit therefor may be provided on the basis of individual consideration upon written request of the physician, subject to review by the Adjudication Committee. In such instances, allowance may be made for medical services up to the date of surgery, or medical services following surgery, or medical services throughout the entire period of hospitalization, depending on the circumstances of each case. However, because it is often difficult, if not impossible, to determine the proportionate responsibility assumed by each physician in the combined care of a severely

ill patient, it will sometimes be necessary for the Adjudication Committee—after determining the Plan's aggregate benefit payment for a given case—

Dr. Tucker: "That will be the surgical plus the medical fee allowances."

(Reading)—to request instructions from the physicians involved as to how the total allowance should be apportioned between them. Such cases will be handled in accordance with the American Medical Association's approved procedures with submission of separate reports by the physicians, and separate payment will be made to each with appropriate notification of the patient.

(Dr. Tucker did not read the following, which is set forth here to complete the record:

#### Schedule for apportionment of available surgical benefit

In cases certified by the operating surgeon, apportionment of the available surgical benefit will be in accordance with the following schedule:

Standard		Preferred	
When Surgical Allowance is:	Apportionment may be:	When Surgical Allowance is:	Apportionment may be:
Up to \$25	Up to \$5	Up to \$50	Up to \$10
\$26 to \$50	Up to \$10	\$51 to \$75	Up to \$15
\$51 to \$75	Up to \$15	\$76 to \$100	Up to \$20
\$76 to \$100	Up to \$20	\$101 to \$150	Up to \$30
\$101 to \$125	Up to \$25	\$151 to \$225	Up to \$50
\$126 to \$175	Up to \$35	\$226 to \$300	Up to \$75

Vice Speaker McGlone: Discussion of this report is in order.

William N. Baker (Pueblo): "This is the minority report Dr. Tucker spoke about that went along with this report."

With regard to proposal No. 2, Item III, of the report just read by Dr. Tucker:

The Minority vote against Proposal No. 2, Item III is based on the premise that there should be no apportionment of scheduled fees. It is our belief that apportionment of fees can lead to a definite abuse. Abuse both to the patient's welfare and to the Blue Shield Fund, and although the proposal may be legalized by action of this House of Delegates, the general principles involved could be conducive to detrimental action by unscrupulous physicians.

In addition, we are opposed to promulgating any practices which would require policing by the staff of the Blue Shield organization, or by the Medical Society.

A lengthy discussion followed, with participation by Drs. I. E. Hendryson, Denver; J. L. McDonald, Colorado Springs; G. H. Curfman, Jr., Denver; Calvin Fisher, Denver; J. A. Philpott, Jr., Denver, and Chairman Tucker. At conclusion of the discussion Vice Speaker McGlone announced that the Secretary would have copies of the complete report mimeographed for the second meeting of the House.

#### Supplemental report of the Prepayment Services Committee

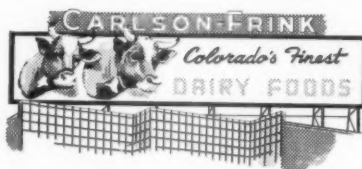
Dr. Robert P. Harvey read the following:

Since the last Interim Session of the Colorado State Medical Society your Prepayment Services Committee has continued its efforts in attempting to arrive at a solution of the Workmen's Compensation Radiological Fee Schedule. Much additional conversation and correspondence have been held with representatives of the Industrial Commission, the Workmen's Compensation Fund and the Colorado Radiological Society by your Committee; those efforts were aided no little by a special meeting of the Board of Trustees

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July 20, 1957, and followed by a meeting of your Committee, at both of which were present properly appointed representatives of the Colorado Radiological Society. Arising from these conferences certain agreements were reached, later ratified by the Colorado Radiological Society and by your Prepayment Services Committee, meeting separately. Preliminarily it must be understood at this point that the fee schedule approved by the House of Delegates this last February was submitted to the Industrial Commission but word as to its acceptance or rejection has not been forthcoming.

The agreements reached by both the Radiological Society and this Committee are as follows:

(Dr. Harvey obtained permission to read each numbered point two times.)

1. The single fee schedule principle as it applies to radiology procedures was approved.

2. The present 1955 Workmen's Compensation Radiological Fee Schedule, with the elimination of the 70 per cent provision (i.e., 100 per cent basis only) was approved for presentation to this House of Delegates. We request its approval in lieu of the prior schedule as previously approved before being submitted to the Industrial Commission.

3. We further request authority from the House of Delegates not to be bound by any one fee schedule but be free to devise, with the assistance of the Colorado Radiological Society, such alternative single fee schedules as may be prepared for submission to the Industrial Commission should the above noted revised schedule not be accepted by that body.

4. The Colorado Radiological Society has given written assurance of its willingness to be bound by the above named principles.

5. The Colorado Radiological Society has agreed to cooperate with the Prepayment Services Committee in actively securing acceptance of this schedule by the Industrial Commission if approved by the House of Delegates; further, that if this proposed schedule is not accepted by the Industrial Commission that the Colorado Radiological Society will cooperate with and actively assist the Prepayment Service Committee of this Society in the preparation of such alternative single fee schedules as may be devised by both groups for submission to the Industrial Commission.

Your Committee on Prepayment Services recommends the adoption by the House of Delegates the above noted items of agreement.

Your Committee wishes to publicly commend those representatives of the Colorado Radiological Society who have given their time, effort and thought in assisting us in at least making one step toward the solution of this problem. These are Drs. Kenneth D. A. Allen, Thomas J. Kennedy, Robert W. Lackey, Charles Gaylord, and most especially Gerald S. Maresh.

Your Committee desires to further express the view

that there has been no necessity for the long continuation of this problem; reasonable and intelligent men should be able to sit down and conclude their differences in far less time than this has involved. Much may and has been said both pro and con on this problem, by the Commission, the radiologists, the generalists, and specialists and by this Committee. All has not been entirely accurate.

As a practical point, it is your Committee's present feeling that there are certain reasons which have been presented why our radiological brethren may not and should not be asked to accept a schedule below the one currently in operation; there are also reasons for believing that adequate radiology is performed other than in recognized radiological offices; we have been informed that roughly 50 per cent of such procedures are done in this manner. We are further inclined to question certain of the statements previously rendered by the Industrial Commission itself.

We further believe that this problem is not one which may be restricted exclusively to radiology. Recently, certain well stated objections to the Commission of their present policy have reached the hands of this committee. These have originated from both generalists and specialists. This material will be offered to the proper reference committee.

As a sidelight to the problem this committee has been informed that contracts have been drawn up with various corporations involving various types of medical care which have been preceded by a type of bidding which to say the least has not been professional in conduct.

Your Prepayment Services Committee has also been engaged in an investigation of athletic injury insurance plans. Both Blue Cross and Blue Shield have been consulted, a preliminary premium estimate has been given, but plans are still in the formative stage.

There was no discussion and the above report was referred to the Reference Committee on Legislation and Public Relations.

Secretary Sethman announced there was no unfinished business remaining from previous sessions of the House.

Mr. Sethman presented the following guests: Mr. Ralph Marshall, Executive Secretary of New Mexico Medical Society; and Mr. Ed Clancy, Director of Public Relations of the California Medical Association. They were greeted with applause.

#### *Election of Nominating Committee*

The following were selected as the Nominating Committee without dissent. There was no ballot:

J. A. Sadler, Larimer; Kenneth Prescott, Mesa; R. R. Anderson, El Paso; Howard Bramley, Den-

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ver; John Farley, Pueblo; John Davis, Arapahoe; and C. O. Roberts, Boulder.

Under new business, Dr. Howard F. Bramley, Senior Delegate from Denver, presented the following resolutions which were referred as shown below:

At the meeting of the Colorado State Medical Society held in Colorado Springs in September, 1954, the following resolution was adopted:

WHEREAS, Organized medicine in the United States is currently reaffirming the definition of the practice of medicine and of various branches thereof; and

WHEREAS, The Colorado State Medical Society believes that all pathology is the practice of medicine, and it is fitting that at this time the Society record such definitions;

NOW, THEREFORE, BE IT RESOLVED, That the following definition is hereby adopted by the Colorado Medical Society and made a part of the Minutes of the Society's 84th Annual Meeting: "All human pathology is the practice of medicine including, but not limited to histopathology, cytopathology, bacteriology, serology, parasitology, hematology, clinical chemistry and clinical microscopy."

That was adopted in 1954. The following is the additional proposal:

AND BE IT FURTHER RESOLVED, That the use of laboratories which are not supervised by physicians does not assure a uniform high standard of laboratory diagnosis, is not in the best interest of the patient, and is contrary to the policy of this Society.

Dr. Bramley: "This is the second resolution."

WHEREAS, State and local governments have traditionally assumed the responsibility of providing the hospital and medical needs of the indigent patient by progressively building hospital and other medical facilities throughout Colorado; and

WHEREAS, Modern transportation makes these facilities readily available to the indigent patient and members of his family; and

WHEREAS, State and local governments have well-organized administrative units to give individual assistance to the indigent patient; and

WHEREAS, It has been tradition from time immemorial for doctors of medicine to give freely of their time and of their scientific skill to the indigent patient, and have always assumed the responsibility of providing the medical manpower in the state and local institutions for the indigent patient without remuneration; and

WHEREAS, The doctors of medicine shall continue at all times to stand ready, and shall assume the responsibility of providing this care as in the past; and

WHEREAS, There has been a mutually satisfactory relationship between the state and local governments and the doctors of medicine in the care of the indigent patient; and

WHEREAS, The recent contractual purchase of hospital and medical insurance by the Colorado State Welfare Department for certain indigent groups, through private corporations, alters these traditionally long-established relationships, and places our state and local governments, the indigent patient and the doctors of medicine in a further dependency upon federal subsidy;

THEREFORE, BE IT RESOLVED, That this House of Delegates, through the Board of Trustees of the Colorado State Medical Society, urge the state and local governments to resume the responsibility of financing directly the care of the indigent patient in the hospitals and facilities presently established and administered by them.

BE IT FURTHER RESOLVED, That in those communities lacking facilities for the care of the

indigent patient, the local medical society be urged to encourage the county governments to get together to negotiate with the nearest satisfactory institution for care on an area basis.

BE IT FURTHER RESOLVED, That the doctors of the Colorado State Medical Society be urged to continue to cooperate with the state and local governments, and to continue to give freely of their time and scientific skills in manning these hospitals and facilities to minister to the indigent patient; and

BE IT FURTHER RESOLVED, That the House of Delegates through the Board of Trustees, vigorously discourage the interposition of a third party between the state and local government, the indigent patient, and the doctor of medicine, be it a private commercial insurance company for financial gain, or a private non-profit insurance agency.

Speaker Swartz referred the first resolution, relating to pathology and laboratories, to the Reference Committee on Professional Relations; and the second resolution pertaining to indigent care was referred to the Reference Committee on Legislation and Public Relations.

It appeared there was no other new business to be presented and Mr. Sethman verified the Roll Call and reviewed the personnel of the reference committees to ascertain whether the Speaker should appoint substitutes.

Speaker Swartz: "We will need to supplement our reference committees. I am going to ask Dr. M. L. Crawford to serve for Dr. Leslie on the Professional Relations Committee; Dr. Yost to serve for Dr. Allison, on Public Health; Dr. Prescott to serve on Public Health in place of Dr. Hyland. I shall ask Dr. Edward C. Budd, of Salida, to serve and assume chairmanship until Dr. John Lundgren, of Northeast Colorado, gets here, on Scientific Work. I will ask Dr. Kenneth E. Gloss, of Colorado Springs, to serve for Dr. Paul B. Stidham, of Mesa County, on Miscellaneous Business, in his place.

"By amendment of the By-Laws last year, the House provided for an Executive Session late in the order of business, whenever needed. The Board of Councilors has already indicated that it wishes to report in Executive Session. If there is no objection the Chair will therefore declare the House in Executive Session at this time. I will appoint Drs. Budd and Ley as Sergeants-at-Arms, and direct them to clear the room of all persons except those entitled to remain during the Executive Session. Those entitled to remain are seated Delegates, seated Alternates, whose Delegates are absent, Trustees, Councilors, Grievance Committeemen, A.M.A. Delegates, Past Presidents, the Executive Secretary, and essential members of his staff.

The proceedings of the Executive Session are set forth in another volume, for the confidential locked files.

Speaker Swartz: "The House is now in open meeting."

At the Speaker's request the Secretary made routine announcements concerning times and places of meeting of reference committees. The chair then declared the House of Delegates adjourned until 4:30 p.m., Wednesday, September

25, 1957, to reconvene in the Colorado Room of the Shirley-Savoy Hotel.

## SECOND MEETING

Wednesday, September 25, 1957

Speaker Swartz called the House to order at 4:30 p.m. Credentials Chairman C. C. Wiley reported recommending the seating of Frederick J. Hilderman, of Ovid, as substitute Alternate for Dr. John Lundgren, of Northeast Medical Society. The roll call disclosed sixty-six accredited members of the House present, more than a quorum.

On motion, the supplemental report of the Credentials Committee was adopted. Upon motions regularly seconded and carried without dissent the following were seated:

Dr. John Whitmore, of Denver, Alternate for Dr. Hugh A. MacMillan, Jr.; Dr. Russell Hibbert, of Weld County, Alternate for Dr. Fred Kuykendall.

There were no additions or corrections to the Condensed Minutes of the First Meeting of the House, which were read by Secretary Sethman, and Speaker Swartz declared the Minutes approved as read.

### Supplemental report of the Board of Trustees

President George R. Buck, Chairman of the Board of Trustees, presented the following report. There was no discussion of it, and it was referred to the Reference Committee on Board of Trustees and Executive Office:

The Board of Trustees has met twice since yesterday's meeting of the House of Delegates. Among the actions taken it has approved the following resolution and recommends its adoption:

WHEREAS, The Colorado State Medical Society has always in the past and does now wholeheartedly believe that the Free Choice of Physician is a basic principle on which to build and preserve the ideal patient-doctor relationship for the ultimate best interests of the patient; and

WHEREAS, This Society's House of Delegates has repeatedly gone on record re-affirming this belief; and

WHEREAS, this House of Delegates concurs completely with the interpretation of the Principles of Medical Ethics applicable to the Free Choice of Physician as published by the Society's Board of Councillors under date of April 13, 1957; and

WHEREAS, A resolution introduced by this Society's Delegates at the Annual Session of the American Medical Association in June, 1957, and four similar resolutions introduced by other states were approved in principle but were not adopted *per se* because leaders of the American Medical Association's House of Delegates at that time felt that the Free Choice concept was sufficiently embodied in the already adopted Guides to Relationships Between State and County Medical Societies and the United Mine Workers of America Welfare and Retirement Fund; and

WHEREAS, Although this Society has been verbally assured by competent representatives of the American Medical Association that the intent of the Principles of Medical Ethics, as now revised and condensed and re-published, remains unchanged without deletion of any basic principle, it is nonetheless true that these newly re-published Principles of Medical Ethics omit the words "Free Choice of Physician"; and

WHEREAS, The Society firmly believes that

this basic principle of ethical conduct must be publicly acknowledged as such by the most authoritative national body representing the medical profession, either by incorporation in the printed Principles of Medical Ethics or as a published binding opinion of the American Medical Association Judicial Council; now, therefore,

BE IT RESOLVED, That the Delegates of this Society to the American Medical Association be, and they are hereby instructed to prepare, present and support a strong resolution toward this end before the Interim Session of the House of Delegates of the American Medical Association in November, 1957.

At the same meeting the Board approved sending the Chairman of the Industrial Health Committee to the A.M.A. Industrial Health Congress in Milwaukee in January.

The Board approved a recommendation of its Finance Committee to request the House of Delegates to revise its Standing Rule on Journal Finances eliminating the figure of \$7,000 as the top limit of the "Journal Reserve Fund," and suggesting that paragraph three of the Standing Rule entitled "Journal Budget and Reserve Fund" be amended to read as follows: "The Editorial Board and the Managing Editor shall adjust their publication plans so that, barring unforeseen circumstances, the Journal shall develop earnings of not to exceed \$1,000 per year to be assigned to a 'Journal Reserve Fund' to be so segregated on the books of the Society."

### Supplemental report, Committee on Constitution, By-Laws and Credentials

It has been brought to the attention of your Committee that an occasional new member of the Society unduly resists the requirement that he attend the Indocination or Orientation Course, which this House of Delegates has required for the last three years of all new members. It has also been brought to our attention that there is some question as to the validity of enforcement of this House of Delegates' requirement, unless it be written into the By-Laws.

Your Committee therefore proposes that the By-Laws of the Society be amended as follows:

#### Amendment

Add a new section to Chapter I entitled Membership to read as follows:

Section 7. Orientation of New Members. A course of instruction to orient new members of the Society in the duties, privileges and obligations of membership, shall be conducted at least annually, under the supervision of the Board of Trustees at such times and places as the Board deems to be for the best interests of the Society and its new members. The course shall consist of such discussions or lectures and such other forms of instruction as the Board of Trustees shall approve.

It shall be the duty of each member of the Society to attend such courses within the first year of his Active Membership in this Society, unless he has attended such course prior to his election to Active Membership. The Board of Trustees may, in its discretion, excuse any member from attendance of said course or postpone his attendance to a future meeting of the course, but any member failing to attend without such excuse or postponement, may be cited by the Board of Trustees before the Board of Councillors for contempt proceedings.

C. C. Wiley, Chairman  
Edgar A. Elhoff  
John B. Farley  
I. E. Hendryson  
Lawrence L. Hick  
Robert C. Lewis, Jr.  
John L. McDonald  
Robert B. Patterson

The above supplemental report of the Com-



mittee on Constitution, By-Laws and Credentials was referred back to the Committee on Constitution, By-Laws and Credentials in its capacity as a reference committee.

#### Reports of Reference Committees

The following reports were submitted by the respective chairmen indicated at the conclusion thereof. Unless otherwise noted they were each adopted by the House without dissent, section by section, and then as a whole. Discussion was called for by the Speaker or Vice Speaker in each instance and there was no discussion except as indicated below.

#### Board of Trustees and Executive Office

(a) Your Reference Committee met and considered the report of the Board of Trustees, paragraph by paragraph as printed in the Handbook on pages 8 to 17, and approved the report with the following recommendations:

1. The Committee commended Mr. John Pompelli for his excellent work in increasing the Journal Reserve Fund.
2. That the House approve the plan to obtain the 1961 A.M.A. Clinical Session and instruct the Board of Trustees to work toward this end.
3. That the annual Board of Trustees meetings out of Denver be discontinued as a general rule, except that meetings out of Denver may be held on invitation of local societies and at the discretion and convenience of the Board.
4. That the Committee on the Indoctrination Course be commended for its excellent work.
5. That the audit as made by the firm of Collins, Peabody, Masters, and Vander Laan be accepted.

(b) The Committee considered the report of the Foundation Advocate as printed on page 19 of the Handbook, and recommends its acceptance with commendation to Dr. King for his continuing interest and fine handling of the Foundation.

(c) The Committee considered the report of the Executive Secretary, paragraph by paragraph, as printed in the Handbook on pages 20, 21, and 22, and approved the report with the following recommendation: That because of the decrease in Associate Membership, the Board of Trustees encourage component societies to increase their Associate Membership which includes medical students, interns and residents.

(d) The Committee considered the question of financing a proposed joint meeting in 1959 of the Colorado State Medical Society with the Rocky Mountain Medical Conference. Should such a meeting be held we recommend that a nominal registration fee be charged.

Lawrence Dickey, Chairman  
Cyrus W. Anderson  
L. J. Beauchat  
J. L. Campbell  
T. W. Halley  
J. R. Spencer

The above reference committee report was adopted, section by section and as a whole, without dissent.

#### Scientific Work

(a) Your Reference Committee considered the reports referred to it in the Handbook beginning with the report of the Committee on Library and Medical Literature on page 24. The Reference Committee approves this report and recommends its adoption.

(b) The Committee approves and recommends adoption of the report of the Standing Committee on Medical Education and Hospitals as also printed on page

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24. Your reference committee further wishes to commend the Department of Postgraduate Education at the University of Colorado Medical School and likewise commend the physicians who have participated in these programs for the excellence of their work.

(c) Delegates will notice on page 30 of the Handbook that one paragraph of the report of the Subcommittee on Alcoholism and Drug Addiction was referred to our reference committee, specifically recommending that a special panel on alcoholism be included in the program of the next Annual Session of this Society. Your reference committee approves this recommendation.

(d) On page 36 of the Handbook the paragraph numbered parenthetically 4 of the report of the Subcommittee on Rural Health was referred to our reference committee. Our reference committee approves this paragraph of the report.

(e) The next report referred to this reference committee is the report of the Committee on Rocky Mountain Medical Conference beginning on page 39. The first part of this report is purely informational, and we congratulate the committee on the success of the meeting of the Conference held this year in Wyoming.

Beginning on page 40 with the first full paragraph on that page the report of the committee offers some definite recommendations concerning the 1959 meeting of the Rocky Mountain Medical Conference for which our Colorado State Medical Society will be host. Your reference committee approves the principle of merging the 1959 Rocky Mountain Medical Conference with the 1959 Annual Session of our Society. As the report of the Standing Committee itself indicates in the second full paragraph on page 40, if this merger be carried out a number of additional and ancillary decisions must be made by the House of Delegates including some definite amendments to the By-Laws in order to avoid a conflict of authority between existing standing committees of this Society.

As previously stated, our reference committee approves the principle of merging these meetings in 1959, and therefore recommends that the remainder of this report except that portion which was referred to a different reference committee be referred to the Standing Committee on Constitution, By-Laws and Credentials with instructions from the House of Delegates to prepare the necessary amendments to the By-Laws to carry this principle into effect and to propose those amendments at the 1958 Annual Session of this Society already scheduled for Colorado Springs. In preparing such amendments it is recommended by your reference committee that the Committee on Constitution and By-Laws consult with the Standing Committee on Rocky Mountain Medical Conference and the Standing Committee on Scientific Program.

(f) Your committee also considered the report of the Committee on Scientific Program beginning on

page 41 of the Handbook and approves it in its entirety. We point out that by approval of this report it will authorize the division of our Annual Sessions into sections as specifically pointed out in recommendation Number 2 on page 42.

E. C. Budd, Acting Chairman  
Howard Bramley  
F. A. Garcia  
Jackson Sadler

Section (f) of the reference committee's report, above, was discussed at length by the Vice Speaker, Drs. Russell Hibbert, J. M. Perkins, Donald E. Newland, William B. Condon, Chairman Budd, and Secretary Sethman. The section was then adopted without dissent.

#### Legislation and Public Relations

The report was presented, discussed, amended and adopted, as indicated below.

J. H. Amesse (Chairman, Denver): "The Chairman of this reference committee submits this report recognizing the diligence and clarity of thought evidenced by his fellow committee members, to whom he is most grateful."

(a) Your reference committee recommends approval of the report of the Committee on Indigent Medical Services as carried on page 26 of the Handbook. (Adopted.)

(b) Your reference committee recommends the approval of the report of the Subcommittee on Medical Care of Veterans as carried on page 27 of the Handbook. (Adopted.)

(c) Your committee has carefully studied the report of the Prepayment Services Committee, has approved this report, and wishes to commend Dr. Harvey for a job well done. We wish to re-emphasize the next to the last paragraph of this report. This is not an amendment, just a re-emphasis. This is not in the Handbook. It was read to the House yesterday morning. This section reads as follows:

"As a sidelight to the problem this committee has been informed that contracts have been drawn up with various corporations involving various types of medical care which have been preceded by a type of bidding which to say the least has not been professional in conduct."

Your committee further suggests that this matter be studied by the Reference Committee on Professional Relations. (Adopted.)

(d) Your committee approves the report of the Public Health Committee on "Relationships Between Medical Societies and Voluntary Health Agencies," as it appears on page 29 of the Handbook. (Adopted.)

(e) Your committee approves the report of the Subcommittee on Aging as carried on page 29; and

## THE CHILDREN'S HOSPITAL ASSOCIATION of DENVER

NON-SECTARIAN—NON-PROFIT

Providing medicinal and surgical aid to sick and crippled children of the Rocky Mountain Region

Approved by The Joint Commission on Accreditation of Hospitals

your committee approves the report of the Subcommittee on Alcoholism and Drug Addiction, as carried on page 30 of this Handbook. (Adopted.)

(f) Your committee approves the report of the Subcommittee on Automotive Safety as carried on pages 30, 31, and 32 of the Handbook. At the same time we wish to commend Dr. Horace Campbell, whose tireless efforts to bring the problem of automotive safety before the public eye has earned him and his committee widespread prominence. Dr. Campbell brought and introduced Captain Handrick, of the Colorado State Patrol and Lieutenant Johnson, of the Traffic Division of the Denver Police Force, to your reference committee. These two public servants gave pointed testimony favoring the implied consent law, as well as Dr. Campbell's other resolutions. (Adopted.)

(g) Your committee approves the report of the Public Policy Committee as it appears on pages 37, 38, and 39 of the Handbook. In reference to the last paragraph of this report on page 39 entitled "Medical Care Covered by Public Welfare Department," your committee would make this statement:

We realize that each county welfare department handles the problem of medical care of the indigent by methods peculiar to the particular county. In the future the same situation should prevail. What is practical in one county is not workable in another.

Your committee approves the report of the Adjudication Committee—State Compensation Insurance Fund, as carried on page 42 of the Handbook. (Adopted.)

(h) Your committee studied the report of the Blue Shield Fee Schedule Advisory Committee with careful concern. (Copies of the three-page mimeographed version of the document to which the doctor referred had been distributed to all members of the House, including a majority report, a minority report, and a supplement.) We commend this important and hard-working committee for its excellent service to the Society. Your committee approves the report with the following additions and deletions:

1. A clause should be added to the end of the paragraph entitled "The Uncomplicated Case" so that the final sentence in this paragraph would read: "As a consequence, the Fee Schedule Advisory Committee agrees that some controlled apportionment of the available Fee Schedule allowance is in order in such occasional cases, and should be handled by the Adjudication Committee."

2. Similarly the paragraph entitled "The Complicated Case" should be amended so that the final sentence would read: "In such instances, the Fee Schedule Advisory Committee also agrees that apportionment of the total plan allowance for care of a difficult case may be in order as decided by the Adjudication Committee."

3. Your committee advises the deletion of the paragraph recommending that its attached Supplement "A" be published in the Blue Shield's Participating Physicians' Manual. In view of the fact that any apportionment of fees is a matter for the Adjudication Committee to study, this committee recommends that Supplement "A" be used for staff information only, and should not be published.

The above Section (h) of the reference committee report was discussed at some length by Chairman Amessee and by Drs. Donald E. Newland, I. E. Hendryson, Vice Speaker McGlone, and Kenneth E. Gloss. It was then adopted on Dr. Amessee's motion, without dissent.

(i) Your committee approves the report of the Representatives to the Advisory Committee of the Public Welfare Department as published on page 46 of the Handbook. (Adopted.)

(j) Your committee recommends, after much deliberation, that the so-called Denver Resolution relating to future care of the medically indigent be approved up to and including the third resolution

paragraph, and that paragraph (or Resolution) 4 be deleted. We feel that paragraph 4 (the final paragraph) in this proposal should be deleted because it would close the door to negotiations with any medical plan. We do suggest, however, that negotiations between various and interested parties concerning care of the medically indigent patient, wherein government subsidy is involved, may have wide side effects or direct results which could be greatly detrimental to the freedom of medical practice.

Section (j) of the above reference committee report was discussed briefly by Drs. Amessee, Harry C. Hughes, Sidney E. Blandford, I. E. Hendryson, and Vice Speaker McGlone. It was then adopted on Dr. Amessee's motion by viva voce vote, not without dissent.

(k) Your committee studied the resolution presented by the ad hoc Committee on Ophthalmia-Neonatorum, and approves this report. (Adopted.)

(l) Your committee approves the supplemental report of the Public Policy Committee as read to the House of Delegates on September 24. We, for the sake of clarity, would amend paragraph 2 so that it would read as follows: "A proposal of the Colorado Heart Association for the prophylactic care of rheumatic heart disease in which a mechanism for furnishing oral penicillin to the patient considered medically indigent by his private physician and prescribed through the physician and the pharmacist, was approved."

Section (l) of the above reference committee report was discussed by Drs. Russell Hibbert, Jackson L. Sadler, Vice Speaker McGlone, President-elect Milligan, Robert G. Bosworth, Jr., and Chairman Amessee. At the conclusion of the discussion, Dr. Amessee and his second withdrew the motion for adoption of Section (l) as worded, and substituted for the quoted sentence in the section as it appears above the following:

"A proposal of the Colorado Heart Association for the prophylactic care of rheumatic heart disease in which a mechanism for furnishing all penicillin to the patient was approved."

As so re-amended with the consent of other members of the reference committee, Dr. Amessee moved its adoption and the motion carried by viva voce vote.

On motion of Dr. Amessee, seconded by several the report of the Reference Committee on Legislation and Public Relations was then adopted as a whole, as amended.

#### Public Health

Chairman Gordon Meiklejohn (Denver): "Mr. Speaker, your Reference Committee on Public Health never managed to achieve a quorum, but a majority of the committee have concurred in the following report."

(a) Your committee has considered the report of the Committee on Health Education on page 23 of the Handbook which includes the report of the Subcommittee on School Health. We approve the report with special thanks to the committee's chairman, and move its adoption.

(b) We have also considered the report of the Committee on Public Health beginning on page 28 of the Handbook and recommend its adoption, with the exception of those paragraphs which were referred to other reference committees. Those parts which we specifically recommend for adoption are, therefore: The report of the Public Health Committee as a whole; its Subcommittees on Aging; Alcoholism and

Zarit to the stand. Dr. Zarit acknowledged the applause of the House and spoke as follows:

Dr. Zarit: "Mr. Speaker and members of the House of Delegates. I consider it an honor to have been chosen by you as President-Elect of the Colorado State Medical Society. It is, I consider, the greatest honor that can be bestowed upon a doctor in the State of Colorado, to be chosen for this office. I realize the seriousness of this position.

"I realize the difficulties to be encountered. I realize it is going to be a great sacrifice on my part in many ways, physically, financially, and otherwise; but I am dedicated to service as I have been in the past, and time will tell whether your confidence in me has been fulfilled. I cannot close my talk without disappointing a few of the members who are present who have heard me express some of my philosophical remarks. So I will close with a little philosophical story that I would like to convey to you which I think hits the point:

"It is called 'The Man and His Three Friends.'

"A certain man had three friends, two of whom he loved dearly, but the other he lightly esteemed. It happened one day that the king commanded his presence in court, at which he was greatly alarmed and wished to procure an attorney. Accordingly, he went to the two friends whom he loved; one flatly refused to help him, and the other offered to go with him as far as the king's gates, but no farther. In his desperation he called upon the third friend whom he least esteemed, and he not only went willingly with him but he so ably defended him before the king that he was acquitted.

"In like manner, every man has three friends when death summons him to appear before his Creator. His first friend whom he loves the most, namely his money, cannot go with him a single step; his second, his relations and neighbors, can only accompany him to the grave, but cannot defend him before the judge; while his third friend, whom he does not highly esteem, his good works, does with him before the Creator and obtains his acquittal.

"I thank you, gentlemen, from the bottom of my heart."

There were no further nominations for the office of Vice President. Speaker Swartz closed the nominations, and Dr. C. C. Wiley, of Longmont, was elected by acclamation.

There were no further nominations for the office of Constitutional Secretary, the Speaker closed the nominations, and Dr. Harry C. Hughes, of Denver, was elected for a three-year term.

There were no further nominations for the office of Trustee for a three-year term to succeed Dr. Lawrence D. Buchanan, of Wray, the Speaker closed the nominations, and Dr. Carl Swartz, of Pueblo, was elected by acclamation.

Speaker Swartz and Vice Speaker McGlone then proceeded, by independent actions in each instance, to conduct the election of the following nominees submitted to the House by the Nominating Committee, there being no nominations from the floor:

Trustee, 1-year term: Dr. Ray G. Witham, of Craig;

Councilor, District No. 1, 3-year term: Dr. L. R. Safarik, of Denver.

Councilor, District No. 4, 3-year term: Dr. Paul R. Hildebrand, of Brush;

Councilor, District No. 5, 3-year term: Dr. John D. Gillaspie, of Boulder.

When the election of Grievance Committeemen was reached, Dr. Robert C. Lewis of Garfield County was nominated for the Grievance Committee by Dr. L. L. Hick of Delta County. There being no further nominations, nominations for the Grievance Committee were declared closed, Vice Speaker McGlone appointed Drs. J. M. Kennedy, T. W. Halley, and R. B. Patterson as Tellers, and written ballots were passed for selection of six Grievance Committeemen from among the seven nominees. When the Tellers reported, they declared the following six elected:

Dr. John Simon, Jr., of Englewood;

Dr. Paul Tramp, of Loveland;

Dr. William Baker, of Pueblo;

Dr. James S. Orr, of Fruita;

Dr. Kenneth Beebe, of Sterling; and

Dr. Joel R. Husted, of Boulder.

Remaining officers were elected as follows, in each case there being no nominations from the floor and the Nominating Committee's candidate being chosen by acclamation:

For Delegate to the A.M.A., 2-year term: Dr. E. H. Munro, of Grand Junction.

For Alternate-Delegate to the A.M.A., 2-year term: Dr. Harlan E. McClure, of Lamar.

For Foundation Advocate: Dr. Walter W. King, of Denver.

For Speaker of the House of Delegates: Dr. Frank B. McGlone, of Denver.

For Vice Speaker of the House of Delegates: Dr. Vernon L. Bolton, of Colorado Springs.

For the place of the 91st Annual Session, to be held in 1961: Pueblo, Colorado, contingent upon the completion of a projected new hotel which would provide adequate facilities.

Speaker Swartz called for additional reports from any board, officer or committee. Secretary Sethman noted that although the Hospital Accreditation Committee had left word it wished to report, no report had been received. There was no response to Speaker Swartz' request for knowledge of the report.

#### *Special A.M.A. Delegates' report*

Dr. E. H. Munro, A.M.A. Delegate, reported as follows:

Two years ago the House of Delegates directed that the A.M.A. Delegates should report to the General Scientific Session of the Society, feeling that there would be more interest in what was being done by organized medicine in that way.

This has been tried at four meetings; but it appears to me that the people who are interested in what goes on in organized medicine are in this House and valuable time is taken from the Scientific Program for that report, and there has been very little interest in it.

I suggest that that procedure be changed. If you would care for a report by word to this body, the members can carry the report home to their own society and it will thus reach a good many more people. That is just my idea; I see Kenneth Sawyer

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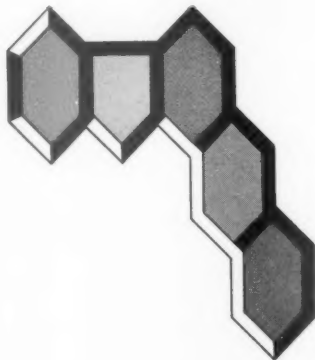
Harmonyl makes rauwolfia more useful in your everyday practice. Two years of clinical evaluation have shown this new alkaloid exhibits significantly fewer and milder side effects than reserpine. Yet, Harmonyl compares to the most potent forms of rauwolfia in effectiveness.

*Most significant: Harmonyl causes less mental and physical depression—and far less of the lethargy seen with many rauwolfia preparations.*

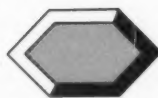
Patients became more lucid and alert, for example, in a study<sup>1</sup> of chronically ill, agitated senile cases treated with Harmonyl. And these patients were completely free from side effects—although a group on reserpine developed such symptoms as anorexia, headache, bizarre dreams, shakes, nausea.

Harmonyl has also demonstrated its potency and relative freedom from side effects in hypertension. In a study comparing various forms of rauwolfia<sup>2</sup>, the investigators reported deserpidine "an affective agent in reducing the blood pressure of the hypertensive patient both in the mild to moderate, as well as the severe form of hypertension." They also noted that side reactions were "less annoying and somewhat less frequent" with this new alkaloid. Other studies confirm that few cases of giddiness, vertigo or sense of detached existence or disturbed sleep are seen with Harmonyl.

Professional literature on this unique rauwolfia derivative is available upon request. Harmonyl is supplied in 0.1-mg., 0.25-mg. and 1-mg. tablets. *Abbott*



**References:** 1. Communication to Abbott Laboratories, 1956. 2. Moyer, J. H. et al: Deserpidine for the Treatment of Hypertension, Southern Medical J., 50:499, April, 1957.



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back there now. I looked for him before getting up. I do not know whether he agrees with me or not.

Kenneth C. Sawyer (Denver, Delegate A.M.A.): That is an excellent idea. We have tried the other method, and like Dr. Munro said, we feel they are not interested. I think that this is the body to which we should be responsible.

Speaker Swartz: This can be handled if someone will make a motion to adopt the recommendation of Dr. Munro; and then the A.M.A. Delegates will report to the House instead of to the General Scientific Session.

A motion to that effect by Dr. Murphey, seconded by Dr. Crawford, carried without dissent.

#### *Supplemental report of Reference Committee on Constitution, By-Laws and Credentials*

Chairman C. C. Wiley reported as follows:

"Your reference committee recommends approval of the supplemental report which would add a new paragraph to the By-Laws concerning the Orientation Course for new Active Members, as presented to the House of Delegates on September 25."

The above report was adopted without dissent and Speaker Swartz declared the By-Laws so amended.

#### *Supplemental report, Reference Committee on Board of Trustees and Executive Office*

Chairman Lawrence Dickey reported as follows:

"The supplemental report of the Board of Trustees regarding the resolution regarding the Free Choice of Physician and removing the top limit of the Journal reserve fund was approved by your reference committee."

The report was adopted by viva voce vote, without dissent.

#### *Additional report of the Reference Committee on Legislation and Public Relations*

Chairman J. H. Ames presented the following to cover items which had been inadvertently omitted from his report at the Second Meeting of the House, which was adopted without dissent:

Your reference committee recommends the approval of the report of the Subcommittee on Medical Care of Veterans as carried on page 27 of the Handbook.

Your reference committee approves the report of the Adjudication Committee of the State Compensation Insurance Fund as carried on page 42 of the Handbook.

The following reports of reference committees were by proper procedure adopted section by section and as a whole without dissent after presentation by the chairmen named below; and any exceptions to this statement are shown in regular order of occurrence:

#### *Reference Committee on Professional Relations*

Dr. V. V. Anderson, Chairman: "At the outset I express my appreciation to the members of this committee for all of the work they have done. The members were present in toto at each meeting with the exception of one member who did not attend. They worked very hard and spent a lot of time each day."

(a) Your reference committee recommends the approval of the report of the Committee on Hospital

Accreditation as carried on page 43 of the Handbook.

Your reference committee was gratified to see that follow-up letters in regard to hospital accreditation for the hospitals concerned had been mailed.

Your reference committee did not receive a supplemental report.

(b) Your reference committee has read and investigated that portion of the report of the Public Policy Committee appearing in the last paragraph of page 38 and entitled "Free Choice of Physician."

The last four lines of that paragraph appearing at the bottom of page 38, and which read "Your committee requests that a proper mechanism be promptly established to assist the Board in its investigations (referring to the Board of Councilors) and in implementing its decision" is held to be an invalid and unnecessary request for two reasons:

1. It has long been established, and this being confirmed by your reference committee, that the Board of Councilors has no power of investigation. Your reference committee thinks that the Public Policy Committee probably meant to refer to the Grievance Committee instead of the Board of Councilors.

2. If the Public Policy Committee meant to refer to the Grievance Committee, instead of the Board of Councilors, your reference committee believes that the request is unnecessary, because the present applicable provisions of the Society's Constitution and By-Laws together with the rules and procedures of the Board, provide for implementation for investigation of any type that the Grievance Committee may undertake. On investigation and inquiry by your reference committee it appears that within reasonable limits there is no lack of facilities of whatever kind to aid the Grievance Committee in their investigations, should they so desire.

For the above reasons, your reference committee wholeheartedly recommends that portion of the report of the Public Policy Committee appearing as the last paragraph on page 38, and at the same time we recommend that the last four lines of that paragraph on page 38 not be approved.

(c) Your reference committee has thoroughly read the report of the Medicolegal Committee appearing on pages 27 and 28 of your Handbook. Your reference committee recommends the approval of the report of the Medicolegal Committee as carried on these pages, and wishes to commend and thank the members of the Medicolegal Committee on the apparent large amount of work and good they have done toward the protection of physicians of this Society, and of the Colorado State Medical Society in general during the course of this year.

In conjunction with the report of the Medicolegal Committee your reference committee has also studied the new forms of the Colorado State Medical Society in regard to the reporting of malpractice claims. It is the opinion of your reference committee that this form is concise, informative, and your reference committee certainly would recommend its adoption if such recommendation is necessary, since the Medicolegal Committee thinks that it is desirable.

Your committee recommends the approval of the report of the Subcommittee on Physician-Nurse Relations as it appears on page 27 of your Handbook.

(d) Your reference committee has reviewed the report of the Subcommittee on Intraprofessional Insurance Problems as it appears at the bottom of the page 26 of your Handbook.

In connection therewith, it has thoroughly investigated, read, and reviewed the supplemental report read before the House of Delegates, and referred to at the bottom of the report on page 26. The Chairman of this subcommittee, Dr. Kester V. Mau, addressed your reference committee and furnished a large amount of informative material in the form of letters, and information which had been gathered by his committee.



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**POSAGE:** Two tablets four times daily.  
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At the same time your reference committee also interviewed, and questioned at some length a representative of the "Empire Casualty Company."

As a result of reading the letters and material presented, in addition to the interviews with the above persons, your reference committee is convinced that:

1. Under existing insurance laws and procedures in the State of Colorado there is no likelihood now, nor for the near future, that any English malpractice insurance company will be permitted to sell malpractice insurance to the physicians of the State of Colorado.

2. There is no likelihood now, or in the near future, that presently permitted and licensed malpractice insurance carriers in the State of Colorado will lower their rates of malpractice insurance to the physicians of the State of Colorado. The above, in the opinion of your reference committee, is very definitely outlined in writing in letters emanating from the office of the State Commissioner of Insurance, and signed by him.

In view of the above facts, and coupled with information presented to your reference committee at the same time by representatives of the proposed Empire Casualty Company, it is the impression of your reference committee that the projected Empire Casualty Company will be within the law of the State of Colorado, and will be permitted under the rules and regulations of the insurance laws of the State of Colorado, and insofar as can be determined will have the blessing of Mr. Beery, the State Commissioner of Insurance.

We therefore urge that members of our Society continue their efforts toward the establishment of an insurance company within our own membership. We also wish to heartily thank the present board of directors of the Empire Casualty Company for their strenuous efforts to date and urge their support.

Your reference committee wishes to thank Dr. Kester V. Maul, the Chairman, and representative of his committee, for the large amount of thorough and pertinent information which he has gathered concerning the problems of intraprofessional insurance for physicians of Colorado. His supplemental report is thorough, his information is as specific as could be reasonably expected, and in the opinion of the reference committee clarifies and forms definite boundaries to the malpractice insurance problems of the physicians of Colorado to the point where it may be possible to take some definite action in hopes that the malpractice insurance rates for physicians of Colorado might be lowered.

(e) Your reference committee recommends the approval of the report of the Subcommittee on Hospital-Professional Relations as it appears at the bottom of page 25 of your Handbook.

(f) Your committee has read the report of the Distribution of Physicians Committee as it appears on page 25, the third paragraph from the bottom, of your Handbook.

Your reference committee has also read the supplemental report of that committee.

It is noted by your reference committee that no meetings were held by this committee. However, a considerable amount of correspondence relating to the distribution of physicians has been sent as a result, at least in part, of the existence of the committee.

It is the opinion of your reference committee that such a committee as the "Distribution of Physicians Committee" can be very important, and enables doctors to find places to practice, and communities to find doctors. Such being the case, it is the opinion of your reference committee that such a committee should meet at some stated intervals during the year, in order to obtain the advantage of several ideas and opinions concerning the problems presented.

(g) Your committee has read the report of the Subcommittee on Blood and Tissue Banks appearing

in the middle of page 25 of your Handbook, and recommends the approval of that report.

(h) Your reference committee has reviewed the report of the Delegates to the American Medical Association as it appears on pages 740 to 745 of the Rocky Mountain Medical Journal dated July, 1957.

Your reference committee wishes to commend and thank the Delegates to the American Medical Association for their fine report as it appears in the Journal, and for the efforts which they have obviously expended towards the production of such a report. It is reassuring to your reference committee that we are so ably represented at the meetings of the American Medical Association.

(i) Your committee has read the report of the Grievance Committee as it appears at the bottom of page 18 of your Handbook.

Your reference committee is cognizant of the effort required to serve on such a committee. Your reference committee recommends the approval of the report of the Grievance Committee as it is carried at the bottom of page 18 of your Handbook.

However, during the past three days your reference committee has met for many hours each day, and in so doing has accumulated a great deal of information. Your reference committee wishes to take this opportunity to disseminate a very small part of this information, and comment thereon.

Your reference committee recognizes that the present Grievance Committee has sincerely performed its duties, and completed to decision many of its cases. However, as stated in the report, the Grievance Committee met eight times since the last Annual Session. Information presented to your reference committee during the past three days indicates that certainly in the future it will be necessary to meet more than eight times a year in order to properly protect the public and members of this Society against unethical practices.

During the past three days your reference committee has listened to hours of testimony, both confidential and non-confidential. This testimony indicates that in spite of the immense amount of information delivered to Colorado doctors through their own Medical Society that a variety of unethical medical practices continue to exist. It is apparent that a small minority of the members of the Colorado State Medical Society are pursuing unethical medical practices.

Your information indicates that various doctors in our Society are bidding against each other for medical contracts. In some instances it appears that the amount bid for a medical service by doctors will not cover the costs of producing that service according to the same doctors' statements in the past.

Your information indicates that some doctors are accepting medical contracts at lower than prevailing rates, with a further indication that with increasing volume of business these rates will be still lower. Your information indicates that ordinary, formerly taken-for-granted, courtesy between doctors has been grossly lacking in certain instances, involving termination and in regard to and exchange of contract practices. Our information very definitely indicates and by specific testimony that some of the so-called voluntary contract insurance health plans of employees are voluntary in theory only.

Your reference committee, on the basis of its information, indicated by the few examples just given, again thoroughly reviewed and reconfirmed to themselves the powers and rules and regulations of the Grievance Committee as indicated by the applicable provisions of the Society's Constitution and By-Laws and its purposes, and also the rules and procedures of the Grievance Committee.

Consequently, your reference committee respectfully urges that the House of Delegates suggest that our Grievance Committee, whoever they may be, urgently consider the dangers of such above practices to our whole medical practice structure in this state.

Your reference committee respectfully suggests that the House of Delegates take some sort of action, through directive, committee or otherwise, which will indicate to the Grievance Committee the wholehearted support of the House of Delegates. This support should include moral, financial, and material support how and when it is needed. Your reference committee recommends that the Grievance Committee inquire into, and of their own initiation, methods of medical practice coming to their attention, even in the absence of complaints thereof.

Your reference committee wishes to thank the Grievance Committee for its work of this past year, and again wishes to urge them to take advantage of the powers bestowed upon them by our Society toward the investigation of unethical medical practices or practices detrimental to the doctors and the people as a whole of the State of Colorado.

(j) Your reference committee has read, and recommends approval, of the report of the Board of Councilors as it appears on pages 17 and 18 of your Handbook.

In addition, your reference committee has read and recommends approval of the supplemental report of the Board of Councilors as read before the House of Delegates at this session.

Your reference committee wishes to sincerely thank, congratulate, and commend the work of the Board of Councilors, the just and sober decisions that they have made, and particularly does your reference committee wish to commend the Board of Councilors on the effort put forth toward the production of the booklet which all the physicians in the State of Colorado have received, and which is known as "Free Choice of Physician."

During the past three days of hearings by this reference committee a considerable number of the Colorado State Medical Society members have appeared before our committee seeking explanation or

clarification of portions of the content of this pamphlet, "Free Choice of Physician." There apparently is some misunderstanding, or confusion among many members of our Society as to the meaning and implication of paragraphs D, F, and G of Article X as contained in the pamphlet on pages 19 and 20. Your reference committee has consulted properly qualified members of the Board of Councilors, and other qualified members of the Colorado State Medical Society, and has received satisfactory explanation, but in view of the large number of inquiries that have been directed to your reference committee in the past three days, we recommend to the House of Delegates that the House of Delegates suggest to the Board of Councilors a review of the language contained in paragraphs D, F, and G, under Article X appearing on pages 19 and 20 of the pamphlet, "Free Choice of Physician."

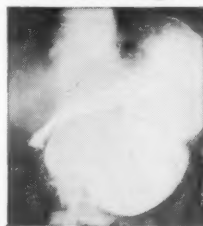
Your reference committee wishes it to be understood that by no stretch of the imagination is this to be considered a criticism, implied or otherwise, of this or any other action of the Board of Councilors, because after a review of the work of the Board of Councilors during the past year your reference committee unqualifiedly and humbly thanks the Board of Councilors for the great amount of valuable work that they have done, and their definite decisions, actions and follow-ups of their decisions on appeal go a long way to strengthening the moral integrity of the Colorado State Medical Society.

However, in view of the surprisingly large number of inquiries concerning the indicated paragraphs in this pamphlet, it was considered best by your reference committee to call it to your attention and to, of course, act upon as you see fit.

(k) Your committee has read the resolution by the Colorado State Medical Society as presented to the House of Delegates in 1954, together with a proposed addition to that resolution read before this

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House of Delegates at this Session, and stating verbatim:

"THAT BE IT FURTHER RESOLVED, that the use of laboratories which are not supervised by physicians does not assure uniform high standard of laboratory diagnosis, is not in the best interest of the patient and is contrary to the policy of this Society."

Your reference committee recommends the approval of this addition to the resolution by the Colorado State Medical Society of 1954.

The above Section (k) of the reference committee report was discussed at length by Chairman V. V. Anderson and Drs. Robert Bosworth, President-elect Milligan, George H. Curfman, Vice Speaker McGlone, William R. Lipscomb, William S. Curtis, Terry J. Gromer, Jackson L. Sadler, and Paul K. Hamilton, the last-named being granted the floor of the House by vote, since he was not a member of the House but was a representative of the Society of Clinical Pathologists.

Following the discussion, on motion by Dr. Sadler seconded by Dr. C. C. Wiley, the entire matter covered by Section (k) above was re-referred to the Committee on Public Policy for review, with instruction for the committee to report to the House at the Interim Session of the House next February. The motion was carried by viva voce vote, but not without dissent. Chairman Anderson then continued with his report:

(1) In conclusion and summary, your reference committee respectfully urges the Grand Jury Division of the Colorado State Medical Society, namely the Grievance Committee, to take immediate and definite investigative action relating to the conditions of medical practice in the State of Colorado, particularly in the Denver area at this time.

V. V. Anderson, Chairman  
Roland R. Anderson  
William B. Condon  
M. L. Crawford  
John B. Farley  
Harry C. Hughes  
James M. Kennedy

The above reference committee report was then adopted as a whole, with the exception of section (k), which had been re-referred.

President Buck then addressed the House as follows:

"Mr. Speaker and members of the House, I want to thank the Reference Committee on Professional Relations for the kind report relative to Empire Casualty Company. The Board of Directors of this company met Wednesday evening until about 11:30 debating whether or not to pursue further the sale of stock so that the company might start into operation. So many requests have been made by you gentlemen and others outside of the House asking that further time be given for the purchase of stock, that the directorate voted to extend the period for the purchase of stock in order that we might get the company going.

"I would urge each of you to be emissaries in urging your colleagues to purchase stock in this company. I would further suggest to you delegates that you get the membership of the Council or Districts together so that you might suggest members for an expanded board of directors contingent upon the active operation of the company, so that your present directors may increase that directorate.

"I would further suggest that the men you select be selected on the basis of business ability, because this insurance company is a business. We hope that

the directorate, which of course will be elected solely by the stockholders, will not be subject to change, because this is not a proposition where you want to indoctrinate men into philosophy, or anything of the kind; you want a stable board to run a stable business.

"I do hope that we can get the stock in quickly because there is a tremendous amount of detail work to be done after the money is deposited with the Insurance Commissioner. We cannot offer the insurance for sale immediately upon qualification. We will have a tremendous amount of detailed work. Remember there will be four additional directors to be selected from the Denver Society.

"We have Dr. Beebe as a director from Northeast Colorado, and Dr. Rigg from Mesa County area. But if you could get together and send me suggested names for the directorate or the expanded directorate, I would greatly appreciate it."

The Secretary reported that the only unfinished business concerned the expected report of the Hospital Accreditation Committee, and word had reached the Secretary that the committee requests permission to delay its report until the Interim Session next February.

On motion properly seconded and adopted without dissent, the permission was granted.

There was no new business, and upon inquiry by the chair the Secretary reported that all reference committees had completed their business and the official desk was clear. Vice Speaker McGlone then declared the House adjourned, without day, at 9:50 a.m., September 27, 1957.

The above abstract of minutes of the House of Delegates is respectfully submitted to the Society.

HARVEY T. SETHMAN,  
Secretary, House of Delegates.





## A medical potpourri

Compiled by Andrew M. Babey, M.D., Las Cruces, New Mexico

"Cardiac decompensation in multiple myeloma may be associated with deposition of abnormal proteins in the cardiac muscle. Cardiac failure of unknown cause, therefore, should arouse the suspicion of the presence of multiple myeloma." Practitioners' Conference, Volume 2 (Edited by Dr. Claude Forkner), Loc. cit., page 214.

"Radiographic examination of bones in multiple myeloma reveals purely osteolytic lesions the result of osteoclastic activity." Loc. cit., page 215.

"Increased alkaline phosphatase may occur rarely in multiple myeloma associated with healing of a pathologic fracture or associated with damage to the liver the result of treatment with urethane." Loc. cit., page 215.

"Normally, after an interval of sixty-five minutes, from 70 to 90 per cent of intravenously injected Congo red remains in the blood and, therefore, from 10 to 30 per cent is absorbed by the tissues. In amyloidosis involving the liver a decreased amount (less than 70 per cent) is retained in the blood and a greater amount (more than 30 per cent) is absorbed or retained by the amyloid in the tissues." Loc. cit., page 215.

"This Congo red test is not sensitive enough to detect small amounts of deposited amyloid and, hence, it is a test for deposition of amyloid in the liver since only the liver contains a sufficient amount of amyloid to cause a positive test." Loc. cit., page 215.

"Severe, sometimes fatal, reactions may occur at the time of second or subsequent injections of Congo red; hence, this test should be done not more than once." Loc. cit., page 215.

"It is a serious error to introduce a Miller-Abbot tube or to give antibiotics in the undiagnosed patient with an acute abdomen." Loc. cit., page 359.

"It is a serious error to administer morphine or other similarly effective analgesics prior to establishing the diagnosis of the cause of the acute abdominal emergency." Loc. cit., page 359.

"Pneumonectomy (for cancer) is twice as lethal an operation as lobectomy, and that on the right side is even more so than that on the left." Dr. J. H. Gifford and Dr. J. K. B. Waddington, British Medical Journal, March 30, 1957, page 729.

"Episodes of chest pain, unexplained dyspnea or pneumonitis occurring in sickle subjects should suggest the possibility of in situ pulmonary infarction." Drs. Kenneth M. Moser and James G. Shea, American Journal of Medicine, April, 1957, page 577.

"A distinctive form of aortic endocarditis and aortitis with aortic insufficiency may occur as an unusual complication of rheumatoid spondylitis, rheumatoid arthritis or the combination thereof. . . . This clinico-pathologic entity has been observed almost exclusively in men and is frequently associated with uveitis." Drs. Wm. S. Clark, J. Peter Kulka, Walter Bauer, Loc. cit., page 591.

"Depressions and other psychologic symptoms often attributed to the menopause do not seem to occur. This conclusion is based on careful clinical experimental studies. Psychiatry at present does not accept involutional melancholia nor menopausal psychoses." Practitioners' Conferences, New York Hospital-Cornell Medical Center, edited by Claude E. Forkner, M.D., Volume 2, page 69.

"A fundamental important fact, not fully appreciated by physicians, is that the menopause per se never causes abnormal bleeding." Loc. cit., page 69.

"There is no evidence that estrogens have any carcinogenic activity." Loc. cit., page 69.

"Menopause in the male designated as the male climacteric is more widely spoken of by vendors of endocrine products than by medical scientists. Women have complete cessation of gametogenesis. Men do not. There is no syndrome in men, associated with endocrine changes, comparable to that in women." Loc. cit., page 70.

or pro rate them. Illinois will take advantage of the 1950 vendor arrangement for its aged, because it has an extensive medical program for them and for the disabled (\$42 per month for disabled alone), and Ohio will keep the 1950 vendor system for its dependent children.

Obviously, there is little uniformity at this experimental stage of the search for the most economical and efficient way to provide medical care for public assistance cases. Federal officials, carefully observing what is going on, raise a few warning signs. They think that where funds are used to provide only one facet of care, such as nursing home, all recipients will wind up in nursing homes and may not receive proper medical attention. Some also are skeptical of a program limited to Blue Cross-Blue Shield hospital care; most recipients, notably the aged, need maintenance care with frequent home and office calls more than they need hospitalization.

#### *The changing picture*

The states' interest in obtaining more U. S. money for public assistance cases by turning to vendor payments is bringing about new patterns in health care for the indigent. In many states care for the indigent up to now has been a county responsibility. In others, particularly New England, it is the responsibility of cities and towns. In these situations, the counties and communities are forbidden by state law to accept federal money to help in the medical care of indigents. As a result, many state legislatures are moving to change state constitutions to make it possible for counties and communities to (a) accept federal and state money for this purpose and (b) participate in pooled vendor-plan arrangements. Thus in these areas the tendency is for the management and financing of medical care for the indigent to leave the local level and move to the state level.

Another change of deep significance to the medical profession also is taking place. In the early years of organized relief, as has been noted, the limited money available for public assistance had to be spread over many families, leaving them only enough for food, clothing, housing. Their medical care was largely a local, private charity proposition, with the doctors and the hospitals giving a great deal of service without pay. Over the years, with the expansion of Social Security and the growth of industrial and private retirement plans, more and more of the necessities of life are being supplied low-income groups from sources other than public assistance. As a consequence, more and more public assistance money is being released for medical care, something that few public welfare agencies could afford to supply in earlier days. For a specific example, in two large states ten years ago only 6 per cent of the total welfare dollars was spent on medical care. Today the proportion is 35 per cent, and welfare directors of these states estimate that in another ten years the proportion will rise to 50 per cent. The explanation is just this: security and retire-

ment programs, public and private, are underwriting the public's income to such an extent that the share of public assistance money that can be set aside for medical care is growing at a rapid rate. This is evidence that the public assistance programs are increasingly directed toward the benefit of the aged, the sick and the disabled.

We point with pride and, forgive the cliché, view with amazement the following communication from one of our esteemed members. A Letter to the Editor always, at first blush, makes us wonder whose name we misspelled or whose feelings have been trod upon by omission of a reference list. But this one, from Leo Bortree, imparts courage for carrying on for at least another ten years:

To the Editor:

I offer my highest commendations to you and your associate Editors for producing the superb Journal we now receive. To me the October edition is the best that I can remember receiving. Not only is the content and format of the highest quality, but I even heartily approve of the editorials, which are constructive and helpful.

I sincerely hope, possibly in vain, that our entire membership will "read, mark, learn and inwardly digest" the articles therein contained. The contributions published will be of great aid to the general practitioner who, after all, is the bulwark of our profession. You are filling a definite need.

Few of our members appreciate the vast amount of time, energy, and erudition that you give to provide us with this outstanding Journal. On their behalf, I want to thank you for your contribution to our profession.

"Be not weary of well doing."

Cordially,

Leo W. Bortree

To the Editor:

We sincerely appreciated the editorial carried in the September, 1957, Journal entitled "Calling Denver, Tabor 5-1331." It is always pleasant to be complimented, particularly when we feel that our Poison Control Center is doing such a good job.

What follows may sound like a criticism which it is certainly not intended to be. It is ironical that so praiseworthy an article is nearly certain to increase the volume of calls which is already straining our ability to handle. As the existence of this Center has become known, we have received calls from the entire Rocky Mountain region as far west as California. Denver may well be put in the position of having to add personnel for this purpose, using its own tax funds to service the region.

We are always happy, however, to be of help.

Sincerely,

Lloyd Florio, M.D.

Manager, Department of Health and Hospitals,  
Denver.

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## The Colorado State Medical Society

*Midwinter Clinical Session,  
February 18-21, 1958, Denver*

**OFFICERS—1957-1958**—Terms of Officers and Committeemen expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1958 Annual Session.

**President:** Gatewood C. Milligan, Englewood.

**President-elect:** John Zarit, Denver.

**Vice President:** C. C. Wiley, Longmont.

**Treasurer** (three years): William C. Service, Colorado Springs, 1959.

**Constitutional Secretary** (three years): Harry C. Hughes, Denver, 1960.

**Additional Trustees** (three years): Terry J. Gromer, Denver, 1958; Ray G. Witham, Craig, 1958; Bernard T. Daniels, Denver, 1959; Carl W. Swartz, Pueblo, 1960.

**Board of Councilors** (three years): District No. 1: L. R. Safarik, Denver, 1960; District No. 2: Roger G. Howlett, Golden, 1959; District No. 3: Harry C. Bryan, Colorado Springs, 1958; District No. 4: Paul R. Hildebrand, Brush, 1960; District No. 5: John D. Gillaspie, Vice Chairman, Boulder, 1960; District No. 6: Harvey M. Tupper, Grand Junction, 1958; District No. 7: Charles L. Mason, Durango, 1958; District No. 8: Herman W. Roth, Chairman, Monte Vista, 1959; District No. 9: Scott A. Gale, Pueblo, 1959.

**Grievance Committee** (two years): Kenneth H. Beebe, Chairman, Sterling, 1959; Freeman H. Longwell, Secretary, Denver, 1958; Gordon H. Vandiver, La Junta, 1958; Robert H. Smith, Colorado Springs, 1958; George G. Balderston, Vice Chairman, Montrose, 1958; Ligon Price, Mt. Harris, 1953; Walter M. Boyd, Greeley, 1958; John Simon, Jr., Asst. Secretary, Englewood, 1959; Paul Tramp, Loveland, 1959; William Baker, Pueblo, 1959; James S. Orr, Fruita, 1959; Joel R. Husted, Boulder, 1959.

**Delegates to American Medical Association** (two calendar years): Kenneth C. Sawyer, Denver, 1958; (Alternate, Irvin E. Hendryson, Denver, 1959); E. H. Munro, Grand Junction, 1959; (Alternate, Harlan E. McClure, Lamar, 1959).

**Speaker, House of Delegates:** Frank B. McGlone, Denver;

**Vice Speaker,** Vernon L. Bolton, Colorado Springs.

**Foundation Advocate:** Walter W. King, Denver.

**Executive Office Staff:** Mr. Harvey T. Sethman, Executive Secretary; Mr. John W. Pompelli, Assistant Executive Secretary; Mrs. Geraldine A. Blackburn, Executive Assistant; 835 Republic Building, Denver 2, Colorado; Telephone AComa 2-0547.

**General Counsel:** Mr. J. Peter Nordlund, Attorney-at-Law, Denver.

## Montana Medical Association

**OFFICERS—1957-1958**—Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated, the term is for one year only and expires at the 1958 Annual Session.

**President:** John A. Layne, Great Falls.

**President-Elect:** Herbert T. Caraway, Billings.

**Vice President:** Leonard W. Brewer, Missoula.

**Secretary-Treasurer:** Theodore R. Vye, Billings.

**Assistant Secretary-Treasurer:** William E. Harris, Livingston.

**Executive Committee:** John A. Layne, Great Falls, Chairman;

Herbert T. Caraway, Billings; Leonard W. Brewer, Missoula;

Theodore R. Vye, Billings; William E. Harris, Livingston;

Edward S. Murphy, Missoula; George W. Setzer, Malta.

**Executive Secretary:** Mr. L. R. Heglund, P. O. Box 1692, Office Telephone 9-2585, Billings.

## The Utah State Medical Association

**OFFICERS—1957-1958**—Terms of Officers and Committees expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1958 Annual Session.

**President:** Reed W. Farnsworth, Cedar City.

**President-Elect:** Leslie B. White, Salt Lake City.

**Past President:** James Z. Davis, Salt Lake City.

**Honorary President:** Frank Ray King.

**Secretary:** J. Poulsen Hunter, Salt Lake City.

**Executive Secretary:** Mr. Harold Bowman, Salt Lake City.

**Treasurer:** Robert M. Dalrymple, Salt Lake City.

**Delegate to American Medical Association, 1957-1959:** Kenneth B. Castleton, Salt Lake City; **Alternate Delegate:** Drew Petersen, Ogden.

**Editor of the Utah Section of the Rocky Mountain Medical Journal:** R. P. Middleton, Salt Lake City.

**Councilors:** Box Elder Medical Society, 1957, J. H. Rasmussen, Brigham City; Cache Valley Medical Society, 1958, C. C. Randall, M.D., Logan; Carbon County Medical Society, 1957, L. H. Merrill, Hiawatha; Central Utah Medical Society, 1959, John B. Cluff, Richfield; Salt Lake County Medical Society, 1957, James F. Orme, Salt Lake City; Southern Utah Medical Society, 1959, Reed W. Farnsworth, Cedar City; Uintah Basin Medical Society, 1958, Bruce R. Christian, Vernal; Utah County Medical Society, 1959, R. E. Jorgensen, Provo; Weber County Medical Society, 1958, I. B. McQuarrie, Ogden.

**President Medical Service Bureau:** Paul A. Clayton, Salt Lake City.

**Executive Committee:** Reed W. Farnsworth, Chairman, Cedar City; James Z. Davis, Salt Lake City; Leslie B. White, Salt Lake City; J. Poulsen Hunter, Salt Lake City; Robert M. Dalrymple, Salt Lake City.

## New Mexico Medical Society

**OFFICERS—1957-1958**—Terms of Officers expire at the Annual Session in the year indicated. Where no year or term is indicated, the term is for one year only and expires at the 1958 Annual Session.

**President:** Samuel R. Ziegler, Espanola.

**President-Elect:** James C. Sedgwick, Las Cruces.

**Vice President:** Lewis M. Overton, Albuquerque.

**Secretary-Treasurer:** Omar Legant, Albuquerque.

**Executive Secretary:** Mr. Ralph R. Marshall, 302 First National Bank Building, Albuquerque; telephone 2-2102.

**Immediate Past President:** Stuart W. Adler, Albuquerque.

**Councilors** (three years): W. O. Connor, Jr., Albuquerque, 1953; L. L. Daviet, Las Cruces, 1953; Aaron Margulis, Santa Fe, 1959; Junius A. Evans, Las Vegas, 1959; Gerald Slusser, Artesia, 1960; George Prothro, Clovis, 1960; Wendell Peacock, Farmington, 1960.

**Delegate to American Medical Association** (two years): H. L. January, Albuquerque, 1958; **Alternate:** Earl L. Malone, Roswell, 1958.

**Grievance Committee:** Louis Levin, Belen, Chairman, 1958; Jack Dillahunt, Albuquerque, Secretary-Treasurer, 1958; A. D. Maddox, Las Cruces, 1953; G. A. Slusser, Artesia, 1953; William Hossley, Deming, 1960; Pierre Salmon, Roswell, 1960; Alfred Jensen, Hobbs, 1959; James McCrory, Santa Fe, 1959; William Natoli, Los Alamos, 1958.

**New Mexico Physicians Service:** Wendell Peacock, Farmington, President, 1953; H. M. Mortimer, Las Vegas, 1960; R. P. Beudette, Raton, 1953; R. V. Seligman, Albuquerque, 1958; Omar Legant, Albuquerque, 1958; Allen Haynes, Clovis, 1959; W. L. Minton, Lovington, 1959; J. P. Turner, Carrizozo, 1959; U. S. Marshall, Roswell, 1959; J. W. Hillsman, Carlsbad, 1959; Angus McKinnon, Albuquerque, 1960; James Wiggins, Albuquerque, 1960; Andrew Babey, Las Cruces, 1960; John Abrams, Albuquerque, 1960; **Executive Director,** Mr. L. J. LeGrave, 212 Insurance Building, Albuquerque, phone 3-3188.

## The Wyoming State Medical Society

**OFFICERS—1957-1958**—Terms of Officers expire at the Annual Session in the year indicated. Where no year or term is indicated, the term is for one year only and expires at the 1958 Annual Session.

**President:** H. B. Anderson, Casper.

**President-Elect:** L. Harmon Wilmoth, Lander.

**Vice President:** Benjamin Gitlitz, Thermopolis.

**Secretary:** Francis A. Barrett, Cheyenne.

**Treasurer:** C. D. Anton, Sheridan.

**Delegate to AMA:** A. T. Sudman, Green River.

**Alternate Delegate, AMA:** B. J. Sullivan, Laramie.

**Executive Secretary:** Mr. Arthur R. Abbey, Cheyenne.

**Councilors:** Albany County, B. J. Sullivan, Laramie; Carbon County, Guy Halsey, Rawlins; Converse County, Roman Zwalsh, Glenrock; Fremont County, Bernard Stuck, Riverton; Goshen County, Joseph Volk, Torrington; Laramie County, S. J. Giovalle, Cheyenne; Natrona County, Frederick Haigler, Casper; Sheridan County, Jay Blumenstock, Sheridan; Sweetwater County, J. G. Wanner, Rock Springs; Teton County, Robert Knapp, Pinedale; Uinta County, Joseph Whalen, Evanston; Northeastern Wyoming, Virgil L. Thorpe, Newcastle; Northwestern Wyoming, John H. Froyd, Worland.



## THE BOOK CORNER

### Book Reviews

**The Philosophy of Medicine:** By William R. Laird, M.D. Charleston, West Virginia, Education Foundation, Inc., 1956. 64 p. Price: \$3.00.

This is a compilation of discussions held with the intern and resident staff in informal sessions. These are arranged, after the manner of Will Durant, in his "Story of Philosophy," into five chief sections: logic, esthetics, ethics, politics, and metaphysics. It is altogether a very readable volume for that relaxed moment. The word "philosophy" should not drive away the casual reader, as this volume should really be designated as a guide to experimental ethics.

John R. Evans, M.D.

**The Principles and Methods of Physical Diagnosis. Second Edition:** By Simon S. Leopold, M.D., Professor of Clinical Medicine, School of Medicine and Graduate School of Medicine, University of Pennsylvania. 537 p., 379 ill. Philadelphia and London, W. B. Saunders Co., 1957. Price: \$9.00.

This book was written primarily for the teaching of physical diagnosis to undergraduate stu-

dents. The author states in his preface that too little attention is paid to the underlying principles—the physics—of examination and too much space to attenuated and emasculated descriptions of clinical disease entities in most textbooks on physical diagnosis. The author tries to adhere to this concept.

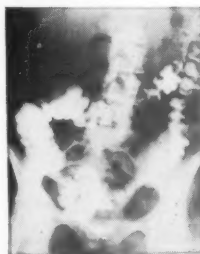
Several changes have been made in this edition since the publication of the first edition in 1952. A chapter on Pediatric Examination has been added. It is written by Dr. Lewis Barnes, Associate Professor of Pediatrics, School of Medicine, University of Pennsylvania. Some changes have been made by the contributing authors in the chapters on Psychiatric Survey, Examination of the Musculoskeletal System, Gynecologic Examination, and the Neurological Examination. A number of electrocardiograms and phonocardiograms have been added to the chapters on Examination of the Circulatory System and on Physical Signs in Certain Diseases of the Heart and Great Vessels.

The text is well written, very readable, and well illustrated. The chapters on examination of the chest, lungs and pleurae, and the heart and circulatory system are especially to be commended for their clarity and context. While this is an excellent textbook on Physical Diagnosis for undergraduate students, any clinician would find it a refreshing review and also a convenient brief, concise reference book on the subject.

Paul F. Miner, M.D.

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THE RECENT PRESIDENTIAL ADDRESS to the Colorado State Medical Society by Dr. Gatewood C. Milligan was quoted in part by many regional newspapers. We feel that the most important parts of the message were over-

## *Reporting Too Little and Too Much*

looked. Others were incompletely translated and negatively construed. Dr. Milligan was correct in stating that the high cost of medical care is partially the profession's own fault. Unnecessary laboratory tests are ordered, at times; patients are sometimes kept in the hospital longer than needed. In other words, over-utilization of prepaid medical service plans is a major evil. It has been far more conspicuous in some parts of the country, notoriously California, than in ours. For example: "\$30-\$50 a day for hospital care; often \$100 for the first day in the hospital; \$50 for a 15-30 minute consultation by a specialist; anesthetic fees equal to more than half the surgical fee; laboratory tests at \$150 a bunch."

One newspaper article said that the speaker cited "doctors' fees rising three times as fast as the cost of living over the last five years, and hospital charges quadrupling since 1936." The article did *not*, however, quote the rest of the paragraph, all based on the same federal government figures, showing that the cost of living since 1936 rose 101 per cent while medical charges rose 78 per cent. It appears that a reporter emphasized a phrase which, out of context, indicated a dramatic evil within our profession. Thus dramatized, his story begot a bigger headline, but at the cost of injustice to his readers, to the medical profession, and to his own profession of writing. The facts, which he could so easily have utilized, are that medical fees were years behind the rest of the inflationary spiral, and only in the last five years have they increased enough (admittedly by 19 per cent in that five-year period as against 6 per cent increase in overall costs of living for

the same five years) to reach the 78 per cent total increase referred to above.

Dr. Milligan's address had been concluded with a short paragraph which quoted a psychiatrist: "You know that alcoholism is the biggest medical problem today" and, the psychiatrist had further stated, "and we physicians set a mighty poor example in regard to alcohol." The President agreed. In our opinion, his excellent address would have been just as effective had it stopped a paragraph or two sooner. We do not blame physicians who are away from home and beyond their telephones for imbibing a relaxing cocktail! But as it developed, his criticism was aired "out of school" through the press with the implication that physicians admit being "poor examples"—a commentary which lent itself too easily to misinterpretation!

It is true that defeat of schemes to socialize medicine must come from our own actions. We are not "against the working man," as some labor leaders have implied. We believe that the average worker is capable of selecting proper medical care of himself and family—that he, with increasing frequency, is displaying amazing insight and judgment in selecting his physician. Furthermore, we believe that he will spend his medical dollar wisely if given the opportunity and proper information both directly and indirectly from us. We confess there are major evils, of which we as physicians are guilty, such as over-utilization of prepaid plans. There have also been instances of over-charging. Some, but not all, such cases have been reported to, and reviewed and corrected by, our Grievance Committees. Unfortunately one case of this sort (remember Dr. Kris and Benny Hooper?) will undo the public confidence and good-will earned and established by the vast majority of our colleagues. These are evils upon which we are concentrating with an aim to obliterate them. We believe that the public should know this, too!

Dr. Milligan made another recommendation which our profession should heed: "Com-

community projects must receive leadership—not just cooperation—from the medical profession. We further recommend that as spokesmen, officers, committee chairmen and local publicity chairmen be used.” Our members have not been sufficiently conspicuous in civil, community, church and educational projects. Though many of us work nights and Sundays, this does not adequately defend us against criticism. The people would like to see more evidence of us as good citizens, participating in community life and contributing to activities outside the profession itself. Dr. Milligan said, “Show the public that our system of practice is best for them and those who would attack us in the name of a group would have no following.”

A JOINT PROJECT by the Colorado State Medical Society and the Denver Police Department demonstrated once again that designing the automobile for safety can bring rewards in the form of reduction in deaths and injuries. On the afternoon of

#### Operation

#### Egg Drop

Monday, May 13, 1957, these two organizations cooperated in “Operation Egg Drop,” in which five fresh hen eggs were dropped from a height of 115 feet in the rotunda of the State Capitol at Denver, down upon sheets of U. S. Rubber “Ensolute” (Type AL). Mr. Hugh De Haven in New York City in 1946 first carried out these tests and demonstrated with the materials then available that excellent protection for the eggs (and the human head) could be rather easily achieved. Over ten years elapsed before practical application of these findings was made in the motorcars of America, and then, not as standard equipment. The sheets of padding were only 1½ inch thick, whereas the long diameter of the eggs was 2½ inches. While some skill was involved in dropping the eggs from this height (and under the circumstances involved) with accuracy upon the target, the eggs hit the mark each time. The bounces were thirty inches, forty inches, five feet and eight feet, respectively, on the basis of observation by several people. One of the eggs broke because it landed on the crack between the two adjacent sheets of padding. In the case of the four eggs that survived,

the yolk in three of them was not broken, showing the remarkable energy absorption properties of this padding material. The other egg which did not break showed some darkening which indicated that the yolk had broken.

The significance of this is that when the human head strikes an object the force may not be enough to fracture the skull, but brain damage may result unless the energy absorption is particularly efficient. That the yolk of these three eggs had survived indicates that in comparable experiment with the human head, the brain likely would not be damaged. The diameter of the human skull is 7½ inches with a forehead radius of about 3¼ inches, and the radius of these eggs which were dropped was about one inch. It indicates that a pad of this material four inches thick would prevent a skull fracture in a drop of this distance, 115 feet. It indicates further that brain damage would rarely occur. This has been shown experimentally by studies elsewhere in which plastic replicas of the human head were hurled by catapult at a speed of 70 miles an hour against heavy steel plates without injury because a pad of four inches had been interposed. The eggs in our demonstration were calculated to have reached a speed of over 55 miles per hour.

These studies were undertaken by the Colorado State Medical Society because many of its members have become convinced that injury prevention is equally important with, and probably more effective than, accident prevention. This demonstration proved, we think, that the human head can be protected from dangerous and fatal injuries in automobile crashes if pads one to two inches thick are placed on those spots within the automobile where the serious blows so often occur; that is, the instrument panel, the corner posts, the door frame, the windshield header, the roof, and the steering-wheel column.

KLZ-TV and radio stations KLZ and KVOD gave us full cooperation by conducting interviews with the participants and taking motion pictures of the experiment. We are indebted to Messrs. G. F. Raymond and C. McClure of the U. S. Rubber Company for supplying us with material for our study.

Horace E. Campbell, M.D., Chairman,  
Automotive Safety Committee, C.S.M.S.



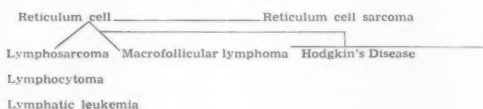
## Lymphoid tumors\* *Diagnosis and treatment*

Hugh F. Hare, M.D., Los Angeles

*Of interest to both internist and radiologist is this presentation of a scheme of treatment based on a logical classification and staging of the confusing lymphoid tumors.*

DURING THE PAST TWENTY-FIVE YEARS, progress has been made in the histologic classification, the diagnosis and the treatment of malignant tumors arising from lymphoid tissue. Radiation therapy is now accepted as the treatment of choice in these conditions; but chemotherapy is becoming more useful and is, at the present time, a good adjunct to treatment.

The histologic classification which is being presented here, while not a uniform one, is a workable classification developed by Dr. Shields Warren<sup>1</sup> which simplifies the varied histologic names applied to these tumors. The classification is as follows:



In explaining this classification, one must remember that the small, mature lymphocyte is a mononuclear cell which develops from the reticulum cell. In lymphoid tissue, the primitive reticulum cell produces the lymphoblast or large lymphocyte which, in turn, develops into the small, mature lymphocyte.

With abnormal lymphoid activity, the affected tissue may reproduce predominately cells of like type at any stage of development. Thus, in lymphoid tumors, there is a preponderance of a particular cell type evidenced upon histologic examination.

Lymphoid tumors, according to Dr. T. Elliott Young<sup>2</sup>, are represented as being neoplastic overgrowths of the various cell types that comprise the normal lymph node. Thus, the classification is dependent upon the predominant cell type recognized in sections of the tumor.

### *Synonyms of tumor types*

The macrofollicular lymphoma is probably the least malignant of the lymphoid tumors. This type of tumor is also known as follicular lymphoma, giant follicle lymphoma, follicular lymphoblastoma or giant follicular hyperplasia of Brill. The second type of tumor is that of a malignant lymphocytoma, also known as a small cell lymphosarcoma, a lymphocytic lymphoma or a lymphocytic lymphosarcoma. This tumor represents a diffuse proliferation of the cells resembling the mature lymphocyte.

The third type of tumor is represented by proliferation of the cell corresponding to the lymphoblast or large lymphocyte, and is known as lymphosarcoma. This has also been called lymphoblastic lymphoma, large cell lymphosarcoma or lymphoblastic lymphosarcoma. The reticulum cell sarcoma is the fourth type of lymphoma and again this may be called stem cell lymphoma, clasmatacytic lymphoma, stem cell sarcoma or reticular lymphosarcoma. This, as the name implies,

\*Presented at the Utah State Medical Association Annual Session September 8, 1956.

refers to a proliferation of the cells corresponding to the primitive reticular cell.

The last type is that of the common Hodgkin's disease which has been known as Hodgkin's granuloma, Hodgkin's paraganuloma, Hodgkin's lymphoma, Hodgkin's sarcoma or scirrhous lymphoblastoma. Hodgkin's disease evidences a polycellular picture with Reed-Sternberg giant cells scattered through a stroma containing predominantly small lymphocytes. Patients with Hodgkin's disease are likely to live a longer period of time than those with the other types of lymphoid tumors.

It is thought that lymphosarcoma and lymphocytoma develop from the lymphoid phase of the reticulum cell, while Hodgkin's disease and reticulum cell sarcoma develop from the reticulum phase. Macrofollicular lymphoma develops from an unclassified section of the reticulum cell, and may change to lymphocytoma in the late stages of the disease. In many cases, the histologic type may not be clear-cut. Several different types may be present in the same node; or different types of lymphoid tumor may be demonstrated when several nodes are removed.

#### *Etiology*

Etiology of lymphoid tumors is unknown. There have been many theories set forth as possible causes. The two main theories at present are malignant disease and virus disease. Our present therapy is based on the malignant conception. There is also considerable difference of opinion as to whether these tumors are unicentric or multicentric in origin. That is, many are of the opinion that the inciting factor producing the disease makes it possible for multiple centers to develop the disease. Others believe that the disease starts unicentrally and spreads through the lymphatic system. Our approach to treatment is based on the theory of unicentric origin.

#### *Clinical aspects*

Any lymph nodes may be the site of origin of the tumor. It has been our experience that the site of origin is most frequently in the head or neck; but in many instances, the original site of origin is unknown due to the advanced stages of the disease at the time the patient is first seen.

Clinical features produced by the lymphoid tumors are variable and depend on the location and extent of involvement. There may be no symptoms or signs other than insidious enlargement of one or more lymph nodes. In other cases, there may be involvement of the retroperitoneal nodes, often causing gastrointestinal disturbances, retroperitoneal discomfort and generalized itching. These symptoms are present in about 10 per cent of the more advanced cases of the disease, and are quite common when the disease is of retroperitoneal origin.

There are so many varied clinical manifestations connected with the disease that one cannot discuss them all in this paper. The most common symptoms associated with the disease are fatigue, loss of weight, and a complaint of swollen glands. Pel-Ebstein's type of pyrexia is present in some advanced cases. However, diagnosis of this condition depends entirely upon microscopic proof. It is often difficult to determine the extent of the disease—whether the process is localized, regionalized or generalized. In many cases, time is the only method of determining the extent of tumor, provided one is able to destroy by radiation the known primary tumor.

#### *Differential diagnosis*

Differential diagnosis of a lymphoid tumor is difficult because it can be confused with any lesion which produces enlargement of lymph nodes or with any retroperitoneal intestinal tract tumor or mediastinal tumor. The most common diseases simulating lymphoid tumors are Boeck's sarcoid, infectious mononucleosis, secondary carcinoma of the lymph nodes, syphilis, tuberculous adenitis and acute adenitis.

Perhaps the most frequent glandular disturbance evidenced clinically is simple adenitis, since in many cases of lymphoid tumor, there is primary swelling of lymph nodes of the neck which tend to partially regress and then become enlarged again later. It is important, in these cases, to have biopsy of the lymph nodes done early. Quite frequently one obtains a biopsy of lymph nodes with a report of hyperplasia, and the lesion later turns out to be a true lymphoid tumor. Where there is mediastinal involvement, differentia-

tion must be made from substernal thyroid enlargement, aneurysm, neurofibroma and congenital tumors.

#### *Hematologic findings*

Since this is a tumor of lymphoid origin, lymphatic spread is the most common. The usual route of dissemination is to adjacent lymph nodes. However, one must consider the lympho-hematogenous spread which takes place through the thoracic duct, innominate vein, right heart chambers and pulmonary circulation. Young<sup>2</sup> found that the thoracic duct was invaded in 92 per cent of all cases of lymphoma, thus showing a means of spread from the lymphatics into the venous circulation. Therefore, the importance of treating the thoracic duct in all cases of lymphoma becomes obvious.

Lymphoid tumors of the head and neck comprise 60 to 75 per cent of all of lesions seen. Thus, the presence of enlarged lymph nodes in the neck makes it mandatory that careful examination of the nasopharynx and tonsillar region be included in the study. The route of lymphatic spread of these lesions is similar to that of all other tumors of the head and neck, but spread from one node to other nodes is more rapid than is usual with other tumors.

#### *Staging*

The staging of the clinical status of this disease has been well done by Peters<sup>3</sup>. This is a fair method of evaluating results of therapy since it is the only method we have of indicating the extent of the disease at the time treatment is started. His staging of involvement is as follows:

Stage I: Only one lymph node region or a single lesion elsewhere.

Stage II: Two or more proximal lymph node regions confined to either upper or lower trunk.

Stage III: Multiple lymph node regions or acute Hodgkin's disease with no obvious lymphatic involvement.

#### *Therapy of choice*

Radiation therapy is the method of choice for most lymphomas. However, lesions arising in the gastrointestinal tract are best treated primarily by surgery followed by

radiation. Radiation seldom, if ever, is the choice for any malignancies involving a hollow viscus. X-ray therapy of good quality, of a quality greater than HVL 3.5 mm. of copper, may be delivered in adequate quantity to control lymphoid tumors without fear of producing significant skin damage. In using Co 60 and two million electron volt therapy which we are presently advocating the quality of radiation is HVL 12.5 mm. of copper and, therefore, there is no significant radiation delivered to the first 2-3 mm. of skin tissue, and frequently at completion of therapy there is only slight erythema of the skin after delivering 3000 r at a daily rate of 170 r.

#### *Chemotherapy*

In the past ten or fifteen years, several definite adjuncts have been developed to aid radiation therapy, such as nitrogen mustard and the steroid compounds. The chemotherapy may be divided into two types: 1. Radiomimetic; 2. Steroids.

We prefer at present to use chemotherapy only in stage II or III cases. For the most part we have found nitrogen mustard therapy disappointing as a palliative procedure. Duration of control of the disease, when such occurs, is short; and the effect of nitrogen mustard on the gonadal system is undesirable, especially in young males<sup>4</sup>. In using nitrogen mustard, the blood count should be watched carefully. The effect on the white blood count and platelets in the lymphomas is severe in some cases, as one would expect with a radiomimetic drug delivering total body radiation.

We use as an adjunct to radiation therapy, one of the cortisones or hydrocortisones. This alleviates itching and controls fever in many cases, in addition to giving the patient a sense of well-being. Granted, the disease progresses under this procedure, but it is a preferable palliation to the radiomimetic drugs thus far developed.

Radiation therapy employed at the Los Angeles Tumor Institute is divided into two distinct types—treatment of localized and regionalized disease, and treatment of generalized disease. Unfortunately, we are unable to make an early definitive determination of the extent of the disease, but we are

attempting to do so with the clinical program outlined below.

#### *Results of radiation*

We have treated a series of fifty-six cases with a two million volt x-ray machine delivering 2400 to 3000 r in eighteen to twenty-four days. There were six cases of recurrence in the field of treatment and persistence of the disease in ten cases. In twenty-three cases the disease recurred outside the field of treatment while seventeen cases in a three-year period showed no evidence of recurrence. When persistence of disease is present following delivery of initial treatment of 2400 r, it is our opinion that the dose should be carried to a higher level in order to obliterate the disease.



Fig. 1. 2 MEV portal film showing area treated for a case of lymphoid tumor. Note the lead blocks used to protect the lung fields. Area of treatment includes the entire cervical region, both supra- and infraclavicular regions as well as the mediastinum.

Radiation to adjacent lymphatics, as well as to primary involved nodes, is the treatment for both localized and regionalized disease. Thus, in a lesion of the so-called primary in the left side of the neck, we would treat both sides of the neck, both supraclavicular regions, both infraclavicular re-

gions, both axillae and the entire mediastinum in one field. This is done with the hope of destroying any spread of the disease by lymphatic means, at the same time realizing our inability to control the lymphohematogenous spread.

#### *Conventional radiation*

In order that this type of therapy be carried out, one is required to use a quality of radiation greater than 8 mm. of copper half-value layer. If conventional radiation is used, a multiportal technic is advisable, using a prolonged course of radiation requiring seventy-five to ninety days. In using the multiportal technic, care must be taken to avoid an overlapping of fields which would cause radiation hotspots and perhaps destroy normal tissue. We have had one definite case of myelitis develop as a result of overlap of field; and this unfortunate experience occurred in a physician.

Treatment of generalized disease represents a more difficult problem of palliation. The dose of radiation should be kept low to prevent radiation sickness. We have found that use of one of the cortisones as an adjunct is of great value in improving the general condition of these patients during treatment of this stage of the disease.

During the course of radiation therapy, it is advisable to watch the blood count carefully, paying special attention to the platelet count. A moderate reduction in platelets and white cells usually occurs as a result of the large or multiple fields necessarily used to treat this disease. Some patients have developed a mild anemia, but this has not been a persistent or serious complication.

#### *Summary*

In this paper on lymphoid tumors, we have attempted to outline a satisfactory histologic classification by describing various names used for lesions of similar characteristics with the intention of promoting the development of a uniform histologic classification. Using Peters' method of staging is thus far the best clinical classification of the disease. Our inability to determine whether disease is localized, regionalized or generalized has been considered. Whenever there are no findings to suggest generalized disease,

the primary tumor and adjacent lymphatics (stage I and II cases) should be given a tumor dose of 2400 r to 3000 r, using care to obtain uniform distribution of radiation throughout the treated area.

In lesions arising in the head, neck and mediastinum it is necessary to treat the thoracic duct and lymphatics down to the diaphragm, since it has been shown that in 92 per cent of the cases the thoracic duct is involved. If one is to use radiation developed by 220 KVP-HVL 2 mm. copper, multiple technic is essential and treatment must be carried out over several weeks to deliver the quantity of radiation required without doing severe damage to normal tissue. The use of radiomimetic therapy as an adjunct

to radiation therapy is discussed. It has been disappointing as a palliative procedure by itself.

Our present technic using the two million electron volt Van de Graaff machine allows us to treat the entire tumor and adjacent lymphatics by using only two portals, one anterior and one posterior, without fear of permanent skin damage. Five-year results are not available, but the two-year results show definite improvement in palliation. •

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## Carcinoma of the breast at the Weld County General Hospital

T. D. Gage, M.D.,\* Greeley, Colorado

*A detailed study of the experience of  
one of the county hospitals in Colorado  
and an exhaustive review of experience  
elsewhere in handling carcinoma of  
the breast.*

CARCINOMA OF THE BREAST is one of the most common malignancies of women, and in spite of intensive research, and professional and lay education, deaths from this disease are still increasing<sup>1,2</sup>. This paper from the Weld County General Hospital has been prepared to analyze the work which has been done here with this disease and to compare the results with other groups that have reported their experiences.

The hospital is an institution of 220 beds serving a predominately agricultural area of approximately 60,000 people. The report represents the total cases that were diagnosed and the original definitive management carried out at the Weld County General Hospital from January 1, 1947, through December 31, 1956.

Four cases are included that did not have a diagnosis made by microscopic tissue examination; however, the clinical cases were such that it was felt that these cases must be included to make the report represent the total experience here. Two cases were admitted in a terminal condition with widespread metastasis and expired. None of these cases had been diagnosed elsewhere. The cases in our records that had the diagnosis made before 1947 or who had a definite diagnosis made elsewhere and were seen here only for follow-up management are not included in this report.

\*The author is the Maytag Resident in Cancer at the Weld County General Hospital.



### Age and sex

Of the 108 patients reported here, the average age at the time of diagnosis was 58 years. This is considerably older than most other reports found in the literature. Geschichter<sup>3</sup> reports the highest incidence is from 40 to 49 years. Bowers and Williamson<sup>4</sup> report an average age of 51 years with 52 per cent of their cases occurring between 41 and 60 years of age. The patients in this report range from 25 to 91 years of age. Age distribution is shown in Fig. 1.

Three males with an average age of 77 years are represented in this series. Two of the lesions were far advanced. This represents just less than a 3 per cent incidence of males; whereas 1 to 1½ per cent is usually reported in larger series<sup>3,6</sup>.

### Symptoms and their duration

Symptomatology in this group was quite minimal. The greatest percentage of patients presented themselves with a mass in the breast and completely free of other symptoms. Pain associated with the tumor was noted by a few. Nipple discharge was an extremely rare complaint. Two patients had

old ulcerated lesions and one of these saw her doctor because of an intractable massive hemorrhage.

Four of the lesions in this group were discovered on routine examination by the patient's physician and fifteen others had noted

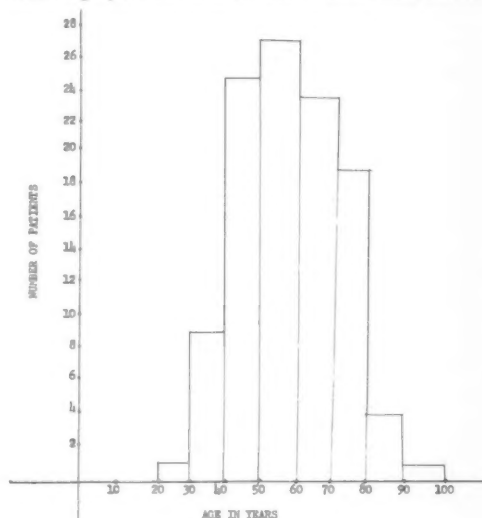


Fig. 1. Age distribution (108 patients).

TABLE 1  
Duration of Symptoms

Duration of Symptoms	No. Patients	Stage Ip	Stage IIp	Stage III	Not Staged
Less than 1 mo.	42	19	22		1
1 mo. to 6 mo.	31	19	9	2	1
6 mo. to 1 yr.	13	5	7	1	
1 to 2 yrs.	3		3		
2 to 3 yrs.	5	4			1
3 to 4 yrs.	3		3		
4 to 5 yrs.	1		1		
Over 5 yrs.	4	1	1	2	
Unknown	6	2	1		3
TOTAL	108	50	44	8	6

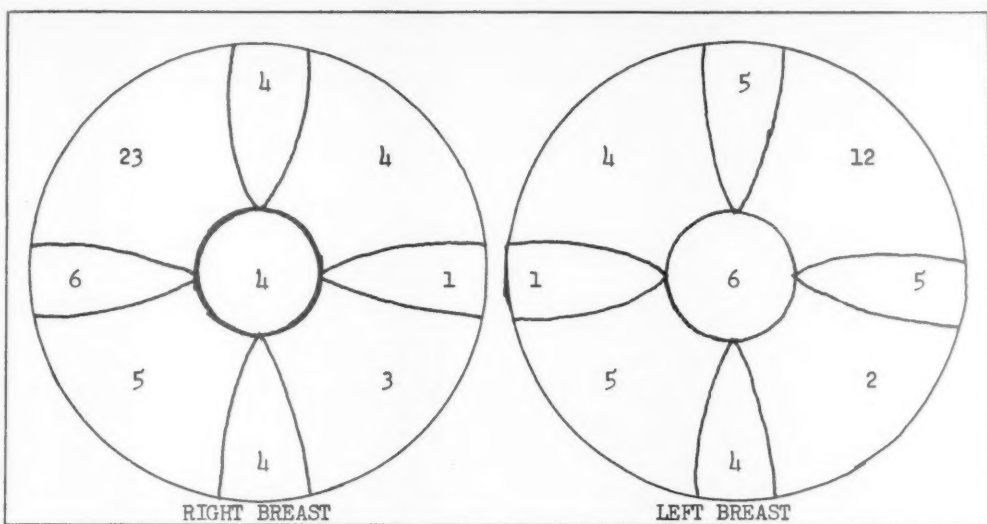


Fig. 2. Location of lesions.

the lesion for one week or less. Thirteen patients reported that they had been aware of the lesion for two years or more, and three patients reported durations of fifteen, twenty and thirty years, respectively. Table 1 shows a more comprehensive breakdown of the duration of symptoms and the number of patients seen in this series. As will be noted, eighty-six patients (80 per cent) were diagnosed within the first year that they were aware of their lesion.

MacDonald<sup>5</sup> states that staging the lesion is a more important criteria than any other one factor in regard to prognosis. The lesions of this study are staged according to these criteria: Stage I-P is without axillary nodes and minimal or no skin involvement. Stage II-P is with axillary node involvement. Stage III is distant metastasis and/or fixation to pectoral fascia.

Correlation of the delay before diagnosis to the stage of the lesion shows that even early diagnosis often reveals an advanced lesion. As shown in Table 1, twenty-two patients (52 per cent) seen by their physician within one month were already Stage II-P lesions. The percentage of advanced lesions markedly decrease in the next period of delay of one to six months; however, by the end of one year of delay, 62 per cent were advanced lesions. This correlates closely with MacDonald's findings.

#### Size and stage

The sizes of the lesions as recorded by the pathologist, are shown in Table 2. The average size of eighty-seven recorded lesions was 30 mm. Forty-four of these did not have positive nodes, and the average size was 26 mm. The remaining forty-three lesions with positive axillary nodes averaged 35 mm. in diameter or 9 mm. larger than those without positive nodes. However, those lesions larger than 10 mm. do not necessarily indicate the stage of the disease as seen by the distribution of size in relation to stage tabulated in Table 2.

#### Location of lesions

As reported by others, there is a slight preponderance of right breast involvement. One carcinoma in aberrant breast tissue and one case of carcinoma occulta were found in this series. In seven cases exact location was not given. Figure 2 shows location of the lesions as recorded by the examining physicians. This is comparable to Geschichter's<sup>6</sup> and Burdick's<sup>7</sup> reports of 48 per cent and 55 per cent being located in the upper outer quadrants.

#### Multiple malignancies

One patient had bilateral involvement at the time of diagnosis and was hospitalized for massive hemorrhage from one breast.

TABLE 2  
Size of Lesions Related to Stage

Size of Lesions	No. Pts.	Stage Ip	Stage Iip	Stage III	Not Staged
Less than 10 mm.	5	4	1		
11 to 30 mm.	56	31	22	2	1
31 to 50 mm.	16	4	11		1
Over 50 mm.	9	4	4		
Not given	22	7	6	4	4
TOTAL	108	50	44	8	6

Four other patients developed other primary malignancies during the course of their follow-up. One of these had had a primary brain malignancy diagnosed two years before her radical mastectomy for carcinoma of the breast, and at autopsy, almost seven years after the diagnosis of the breast cancer, an adenocarcinoma of the rectum was found. Another patient developed a carcinoma of the sigmoid colon approximately nine years after a radical mastectomy. One had a basal cell skin carcinoma and another had a Hurler cell thyroid carcinoma at autopsy. This represents a 3.7 per cent incidence of malignancies of other organs associated with breast carcinomas. Haagensen<sup>8</sup> reports an incidence of 3.4 per cent with the largest number involving cervix and uterus.

#### Operability

The majority of patients in this series had surgery as definitive therapy. Ninety-four (87 per cent) had radical mastectomy, of which thirty-eight (35 per cent) also received deep x-ray. Simple mastectomy was performed on six patients and two of these had in addition deep x-ray therapy. Criteria for this procedure varied widely. Two simple mastectomies were done on far advanced ulcerating lesions and one on a case with large matted axillary nodes; two others were done on breasts with gelatinous carcinoma and one on a breast with a circumscribed papillary carcinoma.

Only one patient received x-ray therapy as primary treatment after biopsy due to poor

cardiac status. Another patient refused surgery, was started on x-ray but after three visits failed to return and expired one year after diagnosis. Two patients refused therapy, even refused excision of tissue for biopsy, and are now lost to follow-up. Two were admitted terminally and received supportive care only until they expired.

Early in the series there was no staff pathologist and when one could not be on hand for frozen section examinations, biopsy specimens were sent to Denver. Twelve cases were managed in this way. All had radical mastectomies one to five days following the report of carcinoma. Eight of the biopsies were excisional and four were incisional. Eleven of these lesions were Stage I-P and one was Stage II-P.

#### Survival

Since this report was prepared at the end of the period the series covers, the length of follow-up on many of the patients is certainly not adequate for any sound conclusions to be drawn. In order to have a group of patients with at least a five-year follow-up, the series is divided at the first five-year period, and all survival figures are based on this first portion of the series. Forty-seven cases were seen from 1947 through 1951. This small number of cases with the necessity to further divide the numbers to get comparative groups, reduces many categories into statistical insignificance; however, this can serve as a beginning for a more complete follow-up which is planned for a future date, with particular

interest in the ten-year survivals. Over-all five-year survival of this group was thirty (64 per cent) patients. Eight of these patients died of the disease within the next five years. One patient is living six years postoperatively but has metastasis. Five (11 per cent) of the forty-seven patients were lost to follow-up and are considered dead. This is in keeping with the way Haagensen and also Burdick calculated their survivals. Haagensen's<sup>9</sup> report from Presbyterian Hospital, New York, shows 3.8 per cent lost; whereas, Burdick's series of nearly 1,000 patients, gathered from the files of a large number of private physicians, had 28 per cent lost to follow-up.

#### *Survival relative to duration of symptoms*

As pointed out before, early diagnosed lesions were frequently advanced. Those diagnosed within six months showed a survival of 59 per cent which is less than the over-all survival of 64 per cent in this series. This is the same trend noted by MacDonald<sup>5</sup> who found a 34 per cent five-year survival in a group of young women who delayed less than six months before diagnosis. The ones in his group that delayed longer had a 54 per cent five-year survival. Table 3 indicates this discrepancy between duration of symptoms and survival.

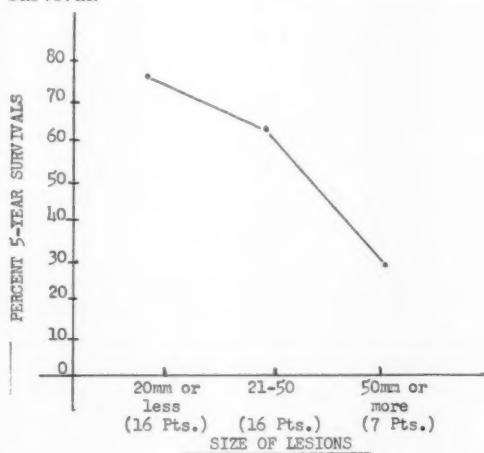


Fig. 3. Survival in relation to size of lesions.

#### *Survival relative to size and stage*

Survival shows an inverse relationship to size of the lesion. Lesions up to 50 mm. show a survival equal to or better than over-all survival. As lesions increase in size above 50

TABLE 3  
5 Yr. Survival in Relation to Duration of Symptoms (47 Patients)

DURATION	NO. PTS.	5 YR. SURVIVALS NO.	%
6 mo. or less	29	17	59
6 mo. to 1 yr.	7	5	71
Over 1 year	8	5	63
Not given	3	3	

mm., the per cent of five-year survivals rapidly falls off as indicated in Figure 3. This corresponds with the findings of MacDonald<sup>5</sup> who reports decreased survival in cases where lesions were 5 cm. or more in size. Of forty-seven patients with five-year follow-up, thirty patients (64 per cent) had Stage I-P lesions. Table 4 shows that of these thirty cases twenty-four (80 per cent) had a five-year survival. This is almost 20 per cent better than over-all survival, and the pattern points definitely to the poor prognostic significance of positive axillary lymph nodes.

Stage II-P lesions had 29 per cent five-year survivals. Even if the four patients in this group who were lost to follow-up are discounted, the survival is still only 40 per cent or one-half as good as those without axillary node involvement. There are only two Stage III lesions in this group and one of these is a five-year survival.

TABLE 4  
5 Yr. Survival in Relation to Stage of Lesion (47 Patients)

STAGE	NO. PTS.	5 YR. SURVIVAL NO.	%
I <sub>p</sub>	30	24	80
II <sub>p</sub>	14	4	29
III	2	1	50
Not Staged	1	1	

#### *Relation of survival to lesion location*

There was 57 per cent five-year survival for the outer hemispheric lesions and 55 per cent for the inner lesions. The difference is

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not statistically significant but agrees with Burdick's report<sup>7</sup> of 699 cases.

#### Relation of survival to treatment

Of the forty-seven patients in this group, twenty-nine (62 per cent) had radical mastectomy as the only treatment. One of these had the internal mammary nodes excised. Fourteen others (30 per cent) had x-ray combined with radical mastectomy.

As noted in Table 5, twenty-four patients (83 per cent) who had only radical mastectomy survived for five years; while five (36 per cent) of those with combined radical mastectomy and x-ray survived five years or more. Seventy-six per cent of the patients that had only radical mastectomy were Stage I-P lesions; whereas, 50 per cent of the patients with combined therapy had Stage II-P lesions.

TABLE 5  
5 Yr. Survival in Relation to Therapy  
(47 Patients)

THErapy	NO. PTS.	5 YR. SURVIVAL NO.	%
RADICAL MASTECTOMY (only)	29	24	83
RADICAL MASTECTOMY AND DEEP X-RAY	14	5	36
SIMPLE MASTECTOMY	3	2	67

#### Delayed radical mastectomy following biopsy

Of the twelve biopsies done, one to five days prior to radical mastectomy, eleven were done in the first five years of this series. Ten patients survived for five or more years, and the eleventh was lost to follow-up. Eight were excisional and three were incisional biopsies. Pierce<sup>10</sup> of the Mayo Clinic pointed out that the delay of radical mastectomy up to eighteen months made no appreciable difference in survival. He did show a marked increase in percentage of five-year survivals when the biopsies were excisional as compared to incisional. Of the three incisional biopsies in this series, one patient is living ten years postoperatively and apparently free of the disease; one expired seven years postoperatively; and the third is living six years postoperatively but with metastasis. Interestingly enough, ten of the eleven had Stage I-P lesions with an average survival of 6.7 years to date as compared with the sur-

vival of 5.9 years for all Stage I-P lesions in this series.

#### Discussion

The 64 per cent five-year survival in this series is 10 to 20 per cent more than that reported by some<sup>4,7,9,11</sup> and compares well with reports of others<sup>10,12</sup>. Forty-seven per cent of the lesions in this series were Stage I-P. Burdick reported only 35 per cent of his series free of axillary nodes. Over-all survival in his series was 42 per cent as compared to 61 per cent five-year survival for those without axillary nodes. The 80 per cent survival in this series of Stage I-P lesions, when compared to the 29 per cent survival of patients with axillary nodes, points out the importance of many Stage I-P lesions in a series.

Staging of the lesions offers definite prognostic significance and if more carcinomas of the breast can be diagnosed while in this stage, survival and cure rates will increase with the present therapy. Regardless of the stage found, intensive and radical treatment plus continued follow-up must be carried out. This is the basic principle of therapy at Weld County Hospital.

Radical mastectomy as the basic fundamental treatment<sup>13,14</sup> is adhered to here by the entire surgical staff. Extensive enblock dissection of the axilla with pectoralis major and minor muscles and a large area of skin is the general practice. X-ray therapy in conjunction with radical mastectomy was used thirty-eight times. This represents individual surgeons exercising their judgment in regards to individual patients and does not follow a definite set of criteria. Fifty per cent of those patients who received combined x-ray and radical mastectomy had Stage II-P lesions whereas 24 per cent of those who had only radical mastectomy had Stage II-P lesions. This indicates the general trend to use x-ray therapy in the more advanced stages. X-ray has been used as an adjunct to radical mastectomy and is in no way advocated as a curative medium. X-ray has been used extensively in local recurrences and distant metastases with satisfactory palliative results.

Super-radical operative procedures that are still in the early stages of evaluation have not been used here except for removal of

internal mammary nodes in one case. This series shows favorable results when compared to others; however, the knowledge that this does not represent cures and that the next five years will see many of the patients succumb to their disease is most distressing.

#### Summary

One hundred and eight cases of carcinoma of the breast at the Weld County General Hospital have been reviewed. The percentage of five-year survivals was found to be equal to or greater than that of most other reports. The discrepancy between early symptoms and early stage lesions is pointed out. The need for diagnosing more lesions while in the early stage and the beneficial effect of this on survival is shown. •

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## The practice of urology in relation to the aged patient\*

Edward N. Cook, M.D., Rochester, Minnesota

*A concise summary of urologic geriatric problems with practical suggestions for proper management. Life expectancy should be considered in deciding about need for surgery. Overtreatment of mild bladder infection is frowned upon.*

AS THE HUMAN BEING reaches an age which for either chronologic or physiologic reasons may be termed "old," he often presents to himself as well as to society certain economic,

social, and medical problems. While it is true that the economic and social problems are of considerable magnitude, it is not the purpose of this paper to discuss them in detail. We will refer to them on occasion, however, as they affect the proper urologic care of some patients. We are concerned specifically with the medical problems and particularly those that have to do with complaints referable to the urinary tract.

The older patient may have the entire gamut of diseases which affect the urinary tract of the young patient, as well as a number of conditions which are commoner or which occur almost entirely among patients in advanced years. The presence of malignant disease must always be suspected with the finding of either microscopic or gross hematuria. The commonest ailment among

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older men is obstruction to the passage of urine due to hyperplastic prostate. About a fifth of prostatic enlargements are due to malignant changes. In general, it is my opinion that the finding of carcinoma of the prostate in a man more than 70 years of age is not too serious, because the local symptoms usually can be relieved by transurethral operation, and the prognosis is good since the progress of the tumor frequently lags behind the patient's normal life expectancy.

#### *Operative risk vs. life expectancy*

Advances made in fields of supportive treatment, anti-infectives, and anesthesia make it possible to offer today rather extensive surgical procedures to many patients who previously would have been denied the chance of surgical benefit because of increased risk involved. However, we physicians must not allow this to influence our judgment in respect to one pertinent fact: What is the patient's life expectancy? We must weigh the risk involved in carrying out treatment against the risk in letting the lesion remain. Certainly we should not be as concerned over a silent stone in a patient who is 65 or 70 years of age, even with minimal or moderate symptoms, as we would be if the patient were only 30 years of age. The younger patient may well live to have his stone enlarge and produce renal damage of a degree that will require nephrectomy, whereas removal of the stone at an earlier date might save the kidney. Also, we must not let minimal symptoms or findings, such as nocturia on several occasions or a moderate amount of pyuria, stimulate too much enthusiasm for operative intervention.

#### *Factors to consider if operation is necessary*

When considering operative procedures in patients of advanced years or those who are physiologically old, we must appreciate the aging process and be cognizant of diseases coincident with and growing out of the aging process. Most of these diseases are related to certain degenerative changes which occur in all organs of the body. Some are related to vascular changes and some are related to physiochemical changes in the tissues themselves. Any attempt to alter these changes at the time we see the patient is of no value. We can, however, by proper evaluation of

the extent of the degenerative changes, frequently prepare the older patient by means of supportive measures in such a way that he presents little more operative risk than the patient who is much younger. Therefore a complete preoperative examination is extremely important and should include urinalysis, blood counts, blood grouping, tests for renal function, serologic tests, and roentgenograms of the thorax and the region including the kidneys, ureters, and bladder. In the individual case, many other supplemental tests may be indicated and necessary. Frequently it is necessary to make an excretory urogram, if any question arises in regard to involvement of the upper portion of the urinary tract. An existing anemia must be completely investigated.

#### *Thorough physical examination*

The aforementioned laboratory tests are of inestimable value, but we must never lose sight of the need of a complete physical examination. If the patient is alert and quick to reply to questioning, if his eyes are clear, if the general tone of his skin is good, and if his grip is good, he will undoubtedly be a better risk than will the unresponsive, weak, and inattentive patient. Many times intense observations are more valuable than an evaluation of the laboratory data or the hospital chart in determining whether or not a patient is a good operative risk.

Varying degrees of degenerative disease will be present in the organs of many of these older patients. Information furnished by the electrocardiogram is of inestimable value in evaluating hypertension, angina pectoris, coronary disease and the general cardiovascular status. Such difficulties are found in more than 50 per cent of elderly patients who have to undergo operation. Diabetes, infection in the urinary tract, and renal insufficiency on any basis will add to the risk. As I mentioned earlier, physicians who are not familiar with the comparatively low risk of operation which presents early in the development of many of these degenerative conditions may postpone surgical intervention and thereby allow elderly patients to deteriorate further until their condition becomes too severe for any reparative effort. We must appreciate that many of the ill-

### Summary

Elderly people with disease of the urinary tract are better risks for surgical procedures than is generally appreciated. Adequate preoperative evaluation with the cooperation of our colleagues in general medicine is essen-

tial. The value of proper preoperative and postoperative care with suitable anesthesia and surgical measures will offer these patients the benefit of operative interference with little more risk than is offered the younger patient. •

## Trauma and its relation to cancer\*

Charles J. Traylor, LL.B., Grand Junction, Colorado

*A controversial subject always, trauma and its relation to cancer is here presented from the lawyer's point of view. The decisions and attitudes are revealing and thought provoking. Reader comments are invited.*

WE ALL AGREE that our subject is complicated and, in some respects, highly controversial. The reasons advanced against the theory that a single trauma can cause or aggravate tumor are impressive. In the two recent world wars, there were millions of men who were subjected to various types of trauma but, so far, there is little evidence of any increase of cancer developing from the scars of the millions who were so injured. It has also been pointed out that the United States is an athletic country, that among the many athletes who participate in all types of sports there are relatively few cases of cancer found in these individuals. Stewart calls attention to the fact that surgeons are daily performing all types of major operations, including chiseling of bone and insertion of such objects as pins and screws therein; the surgeons perform these operations without fear that

the trauma involved will result in cancer. (Stewart does not comment upon the reasoning of the medical profession which apparently insists that when malignant tumors are removed an area encompassing the entire tumor be removed rather than cut into the tumor itself. Is this an indication that those surgeons who are so emphatic in their statements that trauma cannot aggravate or cause metastasis of a tumor, are not yet prepared to take such a risk?)

### Medical opinions†

The opinions of both scholars and experts range from the dogmatic to uncertainty. A few examples of positive statements are:

"A single injury does not cause any form of cancer."

"I would refuse to entertain even the suspicion that mammary carcinoma is caused by trauma."

"A single trauma to normal tissues is incapable of producing a malignant tumor; also, there is no definite experimental evidence that a single trauma either aggravates the tumor already present, determines the time or extent of its metastatic spread or fixes the site at which its metastases shall localize."

"Present data confirm the view, long since adopted by pathologists, that a single trauma to normal tissue is incapable of producing a malignant tumor."

"The pathological anatomists who have interested themselves in this subject are in absolute agreement that a single trauma is incapable of causing a malignant neoplasm."

### Causal relationship

A plaintiff's attorney attempting to prove a causal relationship between trauma and

\*Presented at American Medical Association Regional Medical Legal Institute, March 1957, Denver.

†References are omitted because of space limitations but are available upon request.

cancer would, at first blush, throw up his hands in despair, summarily dismiss his client and vow never again to entertain the notion of interviewing a client who complains that trauma caused or aggravated a malignant tumor. Upon closer reading of the authorities, however, an infinitesimal ray of light streaks through to remove the hopelessness which has previously engulfed him. The attorney after careful search finds those opinions wherein certain doctors frankly declare that there is "some uncertainty" as to the relationship of trauma to cancer:

"Trauma, as far as we know, does not cause bone tumor."

"After many years of experience in the field of bone tumors, the author must confess to an uncertainty of opinion and to a feeling that the final answer has not as yet been provided. He does not hold that a single injury cannot ever be a factor of etiologic significance."

Dr. Gray states that compensation boards and juries hesitate to make a finding that tumors are found to be related to accidents since the medical profession as a whole does not feel that injuries play a part "except perhaps in very rare instances." He goes further and states, "Chronic irritation apparently does play some part," and again sets out examples such as a tumor on men's lips generally thought to be caused by pipe smoking or irritation from a certain tooth; cancer at the mouth of the uterus in women who have borne children, probably caused by irritation over the years; tumor of the stomach, leading to the conclusion that the tumor was frequently preceded by years of irritation due to a gastric ulcer; and cancer of the breast in women who have nursed children, together with a history of cracked nipples during the period of nursing.

Willis states that injuries have often been regarded as the cause of sarcoma of bones but the evidence is inconclusive. He concludes, however, that a thorough investigation makes it clear that the trauma either plays no part at all, or only a very infrequent one, in the causation of bone tumor.

#### *Positive statements*

After further research, the plaintiff's attorney is somewhat encouraged to find statements which strongly indicate that in some instances it is logical to conclude that trauma does cause or aggravate tumor. "Certain types

of cancer seem to be caused by irritation such as has been observed in those working with coal tar products, dyes and radium."

"To assert that an accident of exceedingly minor degree should charge the entire condition to the fracturing force is not logically true. It is only coincident that bone destruction finally reaches the time that fracture occurred due to such an insignificant force. It is only logical to charge accident if the force is of significant magnitude."

"Assuming that trauma may cause sarcoma, and the author believes that such cannot categorically be denied, one is nevertheless at a loss to state how severe or minimal an injury must be. . . . There is some difference of opinion among surgeons as to the effect of trauma inciting metastases, which is illustrated in opinions referable to open biopsy."

"Bone tumor following trauma is not impossible according to a recent medical authority."

#### *Court decisions*

In view of the above divergence in medical opinion, it is not surprising to find that in quoting from and relying upon various medical experts the courts have used language which I am sure is quite terrifying to the cancer expert. Some typical examples are as follows:

1. The accident or strain either caused the cancer, or excited or accelerated it and thus brought on his death.

2. A wart-like lesion was injured by a worker while working in a shipyard, claimant suffered amputation of leg and an orthopedist testified: "Trauma does play a part in activating a pre-existing benign lesion." His evidence was supported in part by a cancer expert. The court adopted the language of the orthopedist.

3. We also agree with the appellants that the question of whether sulphurous fumes such as those shown by the record, will aggravate or "light-up" a pre-existing dormant cancer is a question for expert, not lay, evidence.

4. Cancer of face developed following a blow in assault and the doctor testified that the blow and the failure of wound to heal "was the exciting cause of the cancer." Upheld.

5. A female workmen's compensation plaintiff had carcinoma of left breast some two weeks after trauma to the exact spot, and held a prima facie case for recovery without medical testimony: "If the reasonable probabilities flowing from the undisputed evidence disclose a progressive course of events beginning with an external accident in



which each succeeding happening, including the injury, appears traceable to the one that preceded it, medical evidence is not essential for an injured employee to make out a prima facie case."

6. Physician testified that the accidental injury "could have" aggravated a cancer, "but I can't testify that it did." Yet the court in reaching its decision stated that the sequence of events added to this testimony "tipped scale" in favor of upholding the award upon appeal.

#### *Establishing certainty*

A doctor or lawyer who loses his patience with such an appellate court is overlooking the proper function of the reviewing court. The court might say to stubborn doctors who, convinced of their own infallibility, attack the court's opinion as medically unsound, "Even doctors have no television of pathological history of the inside of man." We, as lawyers, have long since learned that "certainty" of causal connection has never been required. "Medical science has not developed to the extent where it can diagnosis human ailments with the exactitude of the mathematician."

Professor Ben F. Small, Professor of Law at the University of Indiana, in an interesting law review article states that the doctor narrowly admits that trauma might have something to do with cancer developing but merely as an aggravation. As to the lawyer, "He is looking for some footing on which to affirm or to dismiss liability for a condition of harm. Yet while explanation might escape him, cause does not."

#### *Defining cause*

In workmen's compensation and occupational disease cases, he is not limited by the word "cause." He may use "aggravation" or "acceleration" or both. And if the evidence does not show cancerous condition in trauma-time he may theorize as to a dormant unknown condition, "lighted-up" or activated by trauma. It is Professor Small's opinion that: "It appears that if a claimant shows trauma followed by cancer, either old or new, at the point of injury, he has better than an even chance of recovery."

A recent article sets out with great clarity the problem of defining cause:

Medically, the real cause of cancer is not known. But while medicine demands proof specific beyond a reasonable doubt that minor trauma can produce cancer, the law will take "reasonable inferences" from all the circumstances of a case

that minor trauma could have produced a major disability like cancer. The law has to draw such reasonable inferences although often they are contrary to generally accepted medical thinking. For, after all, a court of law is not a hospital clinic or a medical laboratory and a court of law has to decide "yes" or "no" when plaintiff alleges and attempts to prove that a minor legal situation was the cause of his cancer. A court of law in such a case cannot, like a medical laboratory or a medical clinic, say, "We cannot tell you with any degree of certainty whether or not the cancer was produced by the minor legal trauma." This lag between the legal necessity for final "yes" or "no" answers in such cases, conflicts with the medical necessity for a high degree of scientific proof which may not be available today.

#### *Colorado cases*

Since the greater part of our readers are composed of doctors and lawyers from Colorado, it is appropriate to discuss briefly the attitude of Colorado's Supreme Court and the Industrial Commission toward the problem of trauma in its relation to cancer. I have been able to find only two cases cited by our Supreme Court covering this particular point.

In the Canon Reliance Coal Company case decided by our Supreme Court in 1922, the appellant company was represented by several outstanding defense attorneys—L. Ward Bannister, Samuel January, and William Wolvington. I mention this fact only to indicate that knowing the reputation of these gentlemen, we can rest assured that every possible defense was raised, well briefed and ably argued. In order to fully appreciate the decision of the court, we probably should briefly recite the facts as found by the Commission:

On or about February 5, 1920, while the decedent was engaged in loading coal, he was struck on the cheek by a flying lump of coal . . . that he died August 26, 1921. That his death was caused by the malignant growth in his cheek . . . From and after February 5, 1920, and beginning with the time decedent's face became sore and swollen, his condition became steadily worse and finally culminated in his death on August 26, 1921. No intervening cause is shown that would, or does, account for the sudden change in decedent's condition . . . Our finding, therefore, is decedent's death was the proximate result of his accident of February 5, 1920.

The last paragraph of the court's opinion is most interesting and is set out as follows:

The foregoing statements of witnesses are in other places modified and by other experts disputed. The testimony may be unreliable. The whole subject is shrouded in more or less mystery

and, despite the present opinions and theories of some of the authorities and members of the profession, the true cause of such a cancer may tomorrow be established as entirely separate and apart from such an injury. But in our opinion the foregoing is sufficient "substantial and credible evidence" to support the findings and preclude us, under the rule repeatedly laid down by this court, from disturbing those findings, on the theory that the commission, in basing them upon such evidence, acted fully within its power.

#### *Supreme Court decision*

In the Beatrice Creamery Company case, decided in 1929, the Colorado Supreme Court in affirming the decisions of the Industrial Commission, stated:

None of the experts gave it as their opinion that sarcoma cannot be occasioned or aggravated by trauma. The only clear evidence, therefore, is the testimony of claimant and decedent that the swelling arose shortly after the accident and at the site of the injury, and did not antedate the accident. It is, therefore, found as fact that decedent died on May 30, 1928, as the result of an injury received on March 28, 1927, arising out of and in the course of the employment of decedent.

#### *Pathologist's opinion*

In the case of Joe Pollitt the question of whether trauma received by the claimant caused teratoma testis was before the Referee. Dr. Charles B. Kingry, an outstanding pathologist in Denver, testified for the respondent. Dr. Kingry's conclusions in this case were that trauma as described by the claimant did not cause testicular teratoma, because "in my experience and knowledge, I know of no authenticated instance in which trauma caused (emphasis mine) testicular teratoma." In this particular case, Dr. Kingry based his opinion upon the claimant's failure to qualify under at least two of the criteria: (1) there was not, in the opinion of Dr. Kingry, a definite authenticated severe injury; (2) there was no reasonable time relation between the supposed origin and the course of this tumor.

In the case of J. Ford, Dr. del Regato, currently director of the Glockner-Penrose Cancer Clinic in Colorado Springs, gave his opinion on testimony presented in the case. The question, of course, before the Commission was whether or not the cancer was caused, or aggravated, by trauma. Dr. del Regato concurred in medical opinion given by Dr. Richard M. Mulligan which set out

the argument of assumption of causative effect of trauma in the field of tumors. In summary, Dr. del Regato quoted:

I do not believe that the trauma received by Mr. Ford did cause the development of a malignant tumor in his testicle. Assuming that the tumor was already present as it well could have been, the trauma was not intense enough according to the testimony to have caused any aggravation or change in the natural course of this malignant tumor.

An interesting case before our Industrial Commission is the case of Daniel C. McNaughton, in which Dr. Mason Morfit gave an opinion on the testimony presented in that case. He stated the facts as follows:

The case centers around a claim made by the deceased's widow that as a result of an injury received on September 16, 1948, while at work for the State Bureau of Mines, Daniel C. McNaughton developed a malignant tumor of the liver which subsequently led to death. It is again important to call attention to the fact that the claimant received a single blow and was not subjected to chronic, repeated injury.

#### *Primary liver cancer*

Dr. Morfit stated that although there are some types of malignant tumor in which the part of trauma is somewhat open to question, there has never been a claim made by any well-recognized authority that primary cancer of the liver could be attributed to any such fact. The doctor went on to state that, although primary liver cancers are relatively rare, the consistent finding in any large series of cases is the coexistence of cirrhosis of the liver. This has led to the belief by many authorities that cirrhosis of the liver is one of the prime factors in the ultimate production of a primary malignant liver tumor. Dr. Morfit stated that the evidence indicated that this patient had changes in the liver that antedated the trauma and that these changes are a much more likely factor in the genesis of a malignant liver tumor than trauma.

In summary, he stated:

I would state that after reviewing all evidence in this case it is my belief that the tumor developed wholly independently of any trauma and that the ultimate course of the disease was not affected adversely by any trauma.

#### *Hematoma and cancer*

In the James A. Nichols case, another case before our Industrial Commission, involving

cancer, Dr. Morfit has rendered an opinion on testimony as follows:

The case centers around the claim made by Nichols that as a direct result of a single trauma sustained in a fall on February 12, 1947, to the right knee, a malignant tumor developed at that site which subsequently led to amputation of the corresponding extremity.

Dr. Morfit took exception to the testimony of the claimant's doctor whose theory was as follows:

(a) The patient sustained an injury to the right knee.

(b) As a result of (a), a hematoma developed.

(c) That this hematoma failed to resolve spontaneously but that instead its abortive healing resulted in the formation of a malignant tumor.

Dr. Morfit stated that if hematoma was caused by the blow, it should have made its appearance immediately. Contrary to this, the patient stated that the first swelling appeared six weeks later. Further, there is no evidence pertaining to the state of the tissues immediately after the injury which would substantiate any claim of a swelling appearing before this date. He further takes issue with the claimant's doctor's statement: "And it is well known that any pathologist will agree that an organized hematoma can, under certain circumstances, undergo malignant degeneration."

Dr. Morfit stated that he called several reputable pathologists, one of them being Dr. Fred W. Stewart, Chief Pathologist at Memorial Hospital for Treatment of Cancer and Allied Diseases in New York City, and failed to get any one of them to say that they would agree to the above statement.

The attitude of the Colorado Supreme Court relative to Industrial Commission cases can best be summed up by quoting from Justice Sutton when, in refusing to reverse the Commission, he quoted with approval a prior Colorado decision which stated as follows: "There is no dispute concerning the principles of law which are involved. If the evidence, and the logical inferences therefrom, can be said to warrant a conclusion that the accident, within a reasonable probability, resulted in the disability, the claimant is entitled to compensation, since he was successful before the Commission. If, how-

ever, the evidence as a matter of law is insufficient to remove the question of causation from the realm of conjecture and mere possibilities, the award of the Commission cannot be upheld."

#### *Conclusion*

The plaintiff's attorney who is consulted in a case involving the question of whether or not a single or repeated act of trauma can cause or aggravate cancer, must, in all fairness to his client and to himself, give serious consideration to the following items:

1. It is essential that the local physician and the client keep a written detailed record of all information concerning or having any bearing on the case.

2. The attorney must apply these facts to the minimal requirements which are required by the experts, and if satisfied, may cause even the most reluctant doctor to testify that your case appears to be an exception to the general rule. Failure of the facts of your case to satisfy all of these requirements does not mean that your client will be denied a recovery under the law.

3. Obtain the best, within the financial means of your client, medical experts who will support the "probable causation" theory under the particular facts of your case, and most experts admit that there are reputable doctors who so believe.

4. In order to adequately prepare yourself to conduct cross-examination of opposing experts, well in advance of trial, make an appointment and pay your own doctor for the time necessary to fully discuss the various theories which will cause or aggravate cancer (together with the theory of pre-disposition).

5. Be fair, but firm, in explaining the differences in the doctors' interpretation of the word "cause" and that which the courts have accepted.

Even though the medical opinions for the opposition appear impressive and almost overwhelming, ask yourself this question: "Why, if these experts are so positive that a single trauma will not cause or aggravate cancer under any circumstances, do they all set up minimal criteria before they will consider the question of cause or aggravation?"

I am reminded of the mother who scolds her son for believing in ghosts but ends up by telling him that, should he see a white shrouded object, with deep, dark eyes, float-

ing through the air, to call her immediately. Probably—or would it be more acceptable if I said possibly—mother still has an uneasy feeling about ghosts. •

## Persistent truncus arteriosus\*

— an unusual type of congenital heart disease

Mauricio Golberg, M.D., George Heitzman, M.D., Irving Kass, M.D.,  
John B. Grow, M.D., and Murray S. Hoffman, M.D., Denver

*An interesting study, case history,  
and analysis of a rare developmental  
cardiac anomaly.*

PERSISTENT TRUNCUS ARTERIOSUS is an uncommon congenital malformation of the heart. In a review by one of us (M. G.), it occurred three times in 147 autopsies performed at the Children's Hospital of Denver in children dying of cardiac anomalies. During a ten-year period (1942-1952) seven cases were uncovered in 20,000 autopsies done by the First Pathological Department of the Prague Medical Faculty<sup>1</sup>.

A persistent truncus arteriosus with a right aortic arch, such as the case herein reported, is quite rare. Until 1949, Collett and Edwards<sup>2</sup>, in an excellent review, were able to find only six cases which fell into this category. Rowe and Vlad<sup>3</sup>, in 1953, submitted two additional cases. None of the aforementioned cases autopsied at the Children's Hospital at Denver had a right aortic arch. Humphreys<sup>4</sup> listed the following criteria as requisites for the identification of a persistent truncus arteriosus:

### Criteria:

1. Only a single arterial trunk must leave the heart. The coexistence of an atretic ac-

companying vessel as is found in a solitary aortic trunk with a pulmonic atresia and in a solitary pulmonic trunk with an aortic atresia must be rigidly excluded. The arch of the truncus usually goes to the left, since it is usually derived from the left member of the fourth pair of aortic arches. However, as in the case of Feller<sup>5</sup>, and Roos<sup>6</sup>, the arch lay to the right and should, therefore, be considered a derivative of the right fourth arch.

2. There should be four simular cusps.

3. The solitary vessel must perform the function of the aortic and the pulmonary artery.

4. A defect in the upper part of the interventricular septum is present.

5. There is almost always a greater or smaller defect in the interatrial septum.

6. The trunk generally shows a certain distortion. If marked, the trunk may rise entirely from the right ventricle. If moderate, the trunk assumes a "rider" position above the defect in the interventricular wall.

Since success of cardiac surgical intervention requires that an accurate diagnosis of congenital heart and vascular defects be made prior to surgery, it was felt that this case presentation might serve to stimulate wider clinical recognition of this entity.

### CASE HISTORY

This 12-year-old Spanish-American youth was first admitted to the National Jewish Hospital on June 30, 1955. He was thought to be well until May 10, 1955, when routine chest x-ray revealed bilateral infiltration of the lung fields. In retrospect, the parents felt that the patient had been

\*From the Department of Cardiology and Cardiovascular Surgery, National Jewish Hospital, Denver.

gaining weight but slowly for about three years; recently he tired more easily and was unable to keep up with his companions. There was no cough, fever or night sweats.

Although the mother's pregnancy was normal, delivery was complicated by rupture of the membranes five days prematurely. Birth weight was eight and one-fourth pounds. Development during infancy was normal. Childhood diseases included only pertussis, measles, and chickenpox. Family history was non-contributory; both parents and three younger siblings were living and well. The father was 34 and the mother 37 years old.

Physical examination: The patient was an alert, cooperative, but somewhat thin, undersized and slightly cyanotic young male. Temperature was 98.6°, pulse 80 and respirations 20 per minute. Blood pressure in both arms was 105/30-0 mm. Hg. Height was 55 inches and weight 60 pounds. Examination of head, eyes, ears, nose, and throat was normal except for enlarged tonsils and carious teeth.

Anteroposterior diameter of the chest was increased. Expansion on inspiration was symmetrically equal. Breath sounds were somewhat harsh. Percussion, tactile and vocal fremitus were all within normal limits.

Heart findings: The heart was of normal size on percussion. Rhythm was regular and rate 80. There was no precordial bulge and no shock or thrust. Venous neck pulsations were normal. Femoral arterial pulses were normal. The PMI was in the fifth intercostal space at the mid-clavicular line.  $P_2$  was of greater intensity than  $A_2$ . A grade IV harsh systolic murmur was heard over the entire precordium. The murmur was best heard in the second interspace, adjacent to the left sternal border. At the site of maximum intensity of the murmur, a systolic thrill was felt.

Liver, kidneys, and spleen were not palpable. There was no abdominal mass. There was minimal clubbing and cyanosis of all fingers and toes; this was particularly evident in the thumbs and great toes. There was no peripheral edema.

Laboratory findings: Red blood cell count was 4,580,000, hemoglobin, 16 gms., hematocrit, 49, and sedimentation rate, 6 mm. per hour. White blood count was 7,200. Differential count showed 44 per cent neutrophils, 54 per cent lymphocytes, and 2 per cent basophiles. Complement fixation test for syphilis was negative. Sputum examinations were negative for acid-fast bacilli on six occasions. Urine specific gravity was 1.022, with no albumin, sugar, acetone or abnormal sediment noted. Electrocardiogram taken on July 10, 1956, revealed right ventricular hypertrophy (Fig. 1).

Postero-anterior x-ray of the chest (Fig. 2), taken on July 1, 1955, showed cardiomegaly. On fluoroscopy, in the oblique views the enlargement was principally due to the right ventricle. The main pulmonary artery appeared normal but right and left pulmonary arteries were prominent and exhibited increased amplitude of pulsations. Vascularity of the lungs was increased, both peripher-

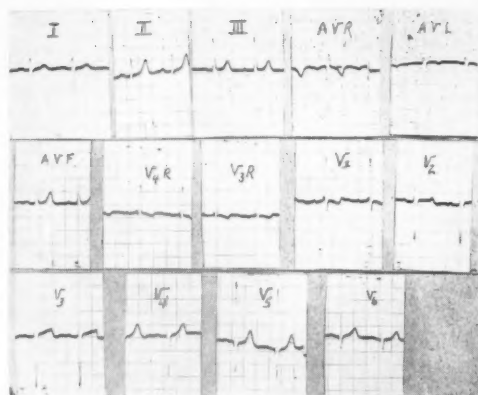


Fig. 1. EKG reveals right ventricular hypertrophy.

ally and centrally. Skin tests were as follows: Old tuberculin 1:100, negative; histoplasmin 1:1,000, negative; coccidioidomycin 1:1,000, negative.

Cardiac catheterization was performed on July 26, 1955, and the following data were obtained.

Hospital course: The clinical diagnosis following catheterization still remained a highly speculative one, although tuberculosis seemed definitely ruled out. The physical and x-ray findings suggested the following possibilities: (1) Isolated interventricular septal defect with bidirectional shunt. (2) Isolated atrial septal defect with bidirectional

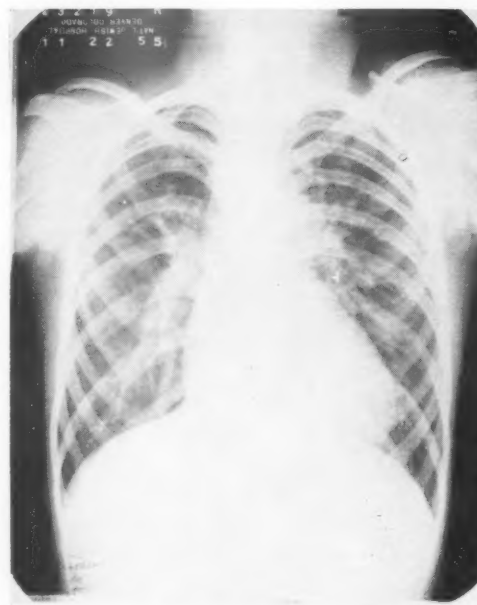


Fig. 2. Postero-anterior view of the chest reveals prominent lung vascularity and a small main pulmonary artery.



TABLE 1  
Catheterization Data\*

Source	O <sub>2</sub> Content State	Vol. (Ave.)	% Saturation	Pressure
Pulmonary artery ....Rest		14.63	83.5	97/52
Ventricle near pulmonary artery..Rest		13.82	78.9	98/0
Ventricle near atrium .....Rest		10.81	61.7	98/0
Average right atrial samples .....Rest		12.41	70.8	2/0
Average superior and inferior vena cavae .....Rest		11.93	68.1	.....
Brachial artery .....Rest		15.32	87.4	105/62
Brachial artery .....Exercise		15.00	85.8	.....

\*We are indebted to Dr. Alfredo Lanari, Chief, Cardiopulmonary Section, for the catheterization data and arterial oxygen studies.

shunt. (3) Atypical ductus arteriosus with pulmonary insufficiency. (4) Single ventricle with transposition of the great vessels and with pulmonary insufficiency. (5) Truncus arteriosus.

On October 31, 1955, to rule out a patent ductus arteriosus, a retrograde aortogram was attempted, but without success. On November 23, 1955, a transternal bilateral thoracotomy was performed

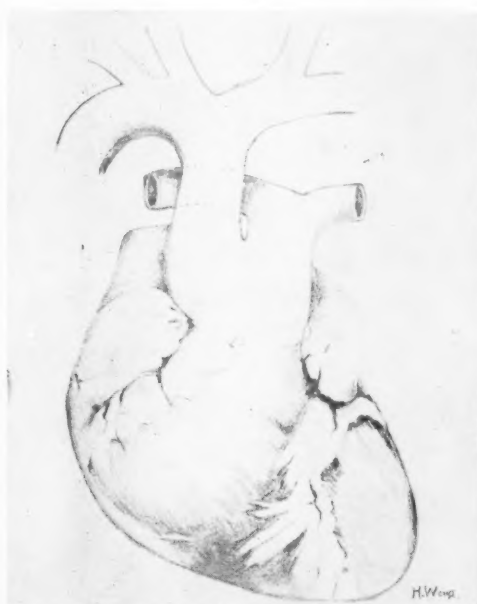


Fig. 3. Diagrammatic schema of the heart. Note the persistent right aortic arch with a single pulmonary trunk and ascending aorta arising from the truncus arteriosus.

under hypothermia. The aortic arch was identified on the right. After careful dissection, identification of both pulmonary and aortic vessels was established. It became clear that there was a persistent truncus arteriosus with right aortic arch. According to Collett and Edwards' Classification made in 1949<sup>1</sup>, this could be classified as Type I sub-group 6 (Figs. 3 and 4).

Since no satisfactory procedure had been formulated for correction of this malformation, the pericardium was closed. Anterior and posterior suction drainage tubes were placed in the chest. Postoperative course was uneventful and on December 23, 1955, the patient was discharged from the hospital.

#### THE FOUR MAJOR ANATOMIC TYPES OF PERSISTENT TRUNCUS ARTERIOSUS

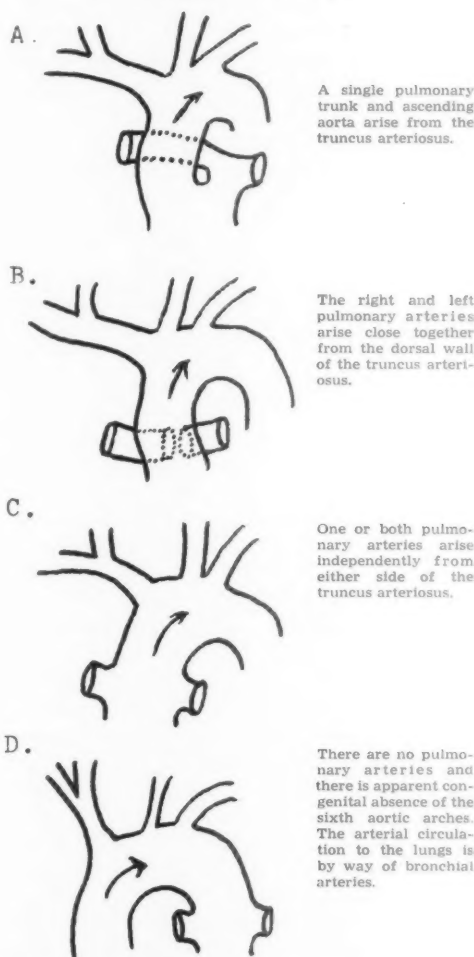


Fig. 4. The four major types of persistent truncus arteriosus.

### Discussion

Generally, the diagnosis of persistent truncus arteriosus is based upon x-ray and fluoroscopic findings. In the posteroanterior position, the heart is enlarged and there is an absence of fullness of the pulmonary conus. In the left lateral position, the contour of the heart is unique in that the upper anterior margin of the heart makes an abrupt angle with the aorta and extends horizontally toward the anterior chest wall. These changes could not be demonstrated roentgenologically in our case, though in retrospect, they were perhaps suggestive. The presence or absence of cyanosis depends upon the volume of blood as well as the pathway by which the arterial blood reaches the lung for aeration. In this case, cyanosis was minimal because the pulmonary artery arose directly from the truncus arteriosus. According to Collett and Edwards<sup>2</sup>, there are at least four major ways by which the pulmonary vessels may arise from the truncus arteriosus as illustrated in Fig. 4.

Electrocardiogram shows an abnormally wide QRS deflection but is of no specific diagnostic aid. The physical findings are that the heart, and particularly the right ventricle, is considerably enlarged. A harsh widely transmitted murmur is present and is frequently associated with a thrill whose maximum intensity is felt over the sternum at the base of the heart. The second sound at the base is loud and pure; there is no reduplication; and it is best heard to the left of the sternum.

### Cardiac catheterization

Cardiac catheterization can be most helpful, particularly if one has thought of a truncus arteriosus. Attention should be directed toward this possibility if the pressure in the pulmonary artery obtained during catheterization approaches that of the brachial artery. The diagnosis can be confirmed if, while directing the catheter through the aortopulmonary septum, an effort is made to pass it into the thoracic aorta. So often,

as in this particular case, the diagnosis is not made during catheterization. It is possible that angiocardiology, and particularly the retrograde approach might be helpful. Dotter and Steinberg<sup>8</sup>, however, were unable to find any case in which the anomaly was convincingly proved by this technic. Such was our experience.

There is no specific surgical therapy available when the pulmonary arteries arise directly from the common trunk and where the pulmonary circulation is adequate. Prognosis depends upon adequacy of the pulmonary circulation, and whether the truncus arteriosus occurs as an isolated malformation. When the pulmonary arteries are given directly off the aorta, as it was in this case, individuals have been known to reach maturity.

### Summary

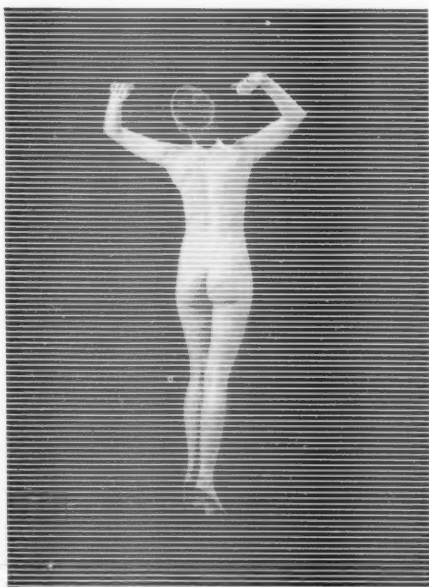
A case of a persistent truncus arteriosus with a right aortic arch is presented. The numerous anatomical variants described by Collett and Edwards<sup>2</sup> are discussed, including the criteria requisite for the diagnosis. Despite cardiac catheterization, the diagnosis was not established pre-operatively. Although no therapy for this variant of truncus arteriosus is known, the prognosis is better in those types in which there is an adequate pulmonary circulation. •

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**SEARLE**



## THE WASHINGTON SCENE

*A monthly news summary from the nation's capital by the Washington Office of the A.M.A.*

Just how much money does the federal government spend on health programs and just how is it spent?

The answers are not easy to come by, but each year the Washington Office of the American Medical Association gathers together all of the bits and pieces of information needed to explain where and how the U. S. is involved in medicine, from cancer research to treating workmen's sniffles. Some of the material comes directly from appropriation bills, but where programs and projects are not identified there, the responsible government officials are consulted for the breakdown.

For all health and medical purposes, the U. S. during the current fiscal year is spending approximately two and one-half billion dollars. This—despite months of economy talk in the administration and in Congress earlier in the year—is about the same figure as last year.

The survey also unearthed some interesting

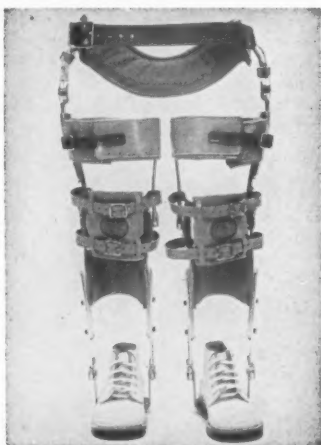
sidelights that show perhaps more graphically than the dollar marks the extent to which federal medical activities are spreading among almost all agencies and departments.

At least twenty-three U. S. cabinet departments and independent agencies are engaged in some medical operations, and there are at least seventy-nine separate health-medical activities worthy of listing and describing. Many of these in turn are responsible for scores of individual operations.

This year the relatively new Department of Health, Education and Welfare tops the list of all departments in health-medical spending with \$849,394,800, bounding past Veterans Administration and Defense Department, which up to now have been at the head of the column. VA is spending \$849,374,000, within \$20,000 of HEW, but Defense Department this year drops back more than \$80 million, to \$702,000,000, largely because the decreasing size of the armed forces means fewer uniformed men and dependents to care for.

Next comes Atomic Energy Commission, but its medical spending of \$40 million—mostly for research—is far down the column from the Big Three.

International Cooperation Administration has \$37 million to help our friends overseas to raise their medical standards. The other nineteen departments and agencies have substantially less, the last item being the \$12,145 allocated to the



**Geo. R. Thornton**

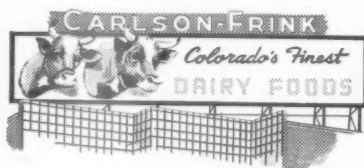
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physician entrusted with keeping members of Congress as healthy as possible.

For the first time the AMA report compiles information on the programs in which the U. S. participates for payments because of disability. Among those receiving payments are veterans, disabled beneficiaries under social security, disabled railroad workers, etc.

Because this money is not all federal and comes from several tax sources—OASI and railroad payroll deductions as well as general U. S. revenue—it is not added to other federal medical costs in the AMA study. For the current fiscal year the total of these "payments for disability" is about \$3.2 billion.

#### Notes:

Federal Trade Commission and Food and Drug Administration joined together to warn drug manufacturers against using "false and misleading claims" to promote drug products for use against Asian influenza. It was pointed out that vaccine is the only protection, and that a physician is needed if there are complications.

Meeting at the invitation of the Children's Bureau, a group of specialists in the health fields discussed use of x-rays of the newborn and pregnant women and concluded that restraint must be exercised.

There has been remarkable progress in the last five years in the fight against tuberculosis, but there are still at least 250,000 active cases in the United States. This is the gist of a special nationwide survey by Public Health Service and the National Tuberculosis Association.


While visiting Russian women scientists were telling of a 25-cent drug to treat Asian influenza, it was learned that some members of the Russian Embassy staff in Washington had been vaccinated with American vaccine.

In a major address, President Eisenhower pleaded for more private financial aid to medical colleges and warned against the dangers of federal controls in this field.


When asked his opinion on legislation for the hospitalization of the aged under social security, Secretary Folsom warned against the tax increase that would have to accompany the plan, possibly a suggestion that the administration will oppose the idea next year as it did last.

Reversing a previous policy, the Internal Revenue Service now says it is possible for a group of doctors to practice as an "association," thereby qualifying for approximately the same tax benefits they would receive under the proposed Jenkins-Keogh law.


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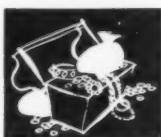


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## ORGANIZATION



### MONTANA

#### Christmas Party

The Yellowstone Valley Medical Society will hold its annual Christmas party at the Lake Hills Country Club on Saturday evening, December 21. Physicians from other communities are cordially invited to attend this annual Christmas party of the Yellowstone Valley Medical Society and may write to John J. McGahan, M.D., Secretary, 1222 North 27th Street, Billings, for reservations.

#### Obituaries

##### J. L. MONDLOCH

Joseph Lorin Mondloch, M.D., of Butte, died September 20, 1957. Dr. Mondloch was born in Butte on November 9, 1894. He attended St. Louis University and in 1928 received his M.D. degree from St. Louis University School of Medicine. Upon graduation, he established practice in Butte. He continued his practice in that community until a short time before his death.

##### NEIL M. LEITCH

Neil McLean Leitch, M.D., of Kalispell, died on October 6, 1957, in a Missoula hospital. Dr. Leitch was born in Kewanee, Illinois, September 23, 1897. He obtained an A.B. degree from the University of Illinois in 1920 and his M.D. degree from the University of Illinois College of Medicine in 1925. He practiced in Illinois and Minnesota before he moved to Kalispell in 1944, where he engaged in the practice of urology.

##### P. T. SPURCK

Peter Thomas Spurck, M.D., of Butte, died October 14, 1957, after a long illness. Dr. Spurck was born in Peoria, Illinois, on August 30, 1887. He graduated from Northwestern University School of Medicine in 1909, after which he undertook postgraduate training in radiology. Dr. Spurck moved to Butte in 1936 and became a member of the staff of St. James Hospital where he practiced his specialty until he retired in 1954.



### SOCIETY PROCEEDINGS

#### Proceedings of the House of Delegates, Montana Medical Association

79th Annual Meeting  
September 19-21, 1957  
Missoula

The first session of the 79th Annual Meeting of the House of Delegates of the Montana Medical Association was called to order by Edward S. Murphy, M.D., President, at 8:45 a.m. in the Lodge of Montana State University, Missoula, Montana.

The Secretary, T. R. Vye, M.D., announced that all delegates seated had presented proper credentials and that a quorum was present.

Upon motion regularly seconded and carried, the following were seated as delegates from the component societies indicated:

S. C. Pratt, M.D., Southeastern Montana Medical Society.  
Mabel E. Tuchscherer, M.D., Silver Bow County Medical Society.  
continued on 1314

## PICKER X-RAY, ROCKY MOUNTAIN, INC.

Emery L. Gray, General Manager



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# KYNEX



SULFAMETHOXYPYRIDAZINE (3-SULFANILAMIDO-6-METHOXYPYRIDAZINE) **LEDERLE**

New authoritative studies prove that KYNEX dosage can be reduced even further than that recommended earlier.<sup>1</sup> Now, clinical evidence has established that a single (0.5 Gm.) tablet maintains therapeutic blood levels extending beyond 24 hours. Still more proof that KYNEX stands alone in sulfa performance—

- Lowest Oral Dose In Sulfa History—0.5 Gm. (1 tablet) daily in the usual patient for maintenance of therapeutic blood levels
- Higher Solubility—effective blood concentrations within an hour or two
- Effective Antibacterial Range—exceptional effectiveness in urinary tract infections
- Convenience—the low dose of 0.5 Gm. (1 tablet) per day offers optimum convenience and acceptance to patients

**NEW DOSAGE.** The recommended adult dose is 1 Gm. (2 tablets or 4 teaspoonfuls of syrup) the first day, followed by 0.5 Gm. (1 tablet or 2 teaspoonfuls of syrup) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive ¼ of the adult dosage. It is recommended that these dosages not be exceeded.

**TABLETS:** Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

**SYRUP:** Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

1. Nichols, R. L. and Finlano, M.: *J. Clin. Med.* 49:410, 1957.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK  
\*Reg. U. S. Pat. Off.



## Organization cont. from 1310

H. H. James, M.D., Silver Bow County Medical Society.  
Edward M. Gans, M.D., Fergus County Medical Society.

It was moved by Leonard W. Brewer, M.D., that the reading of the minutes of the Tenth Interim Session of the House of Delegates, held in Helena on March 30, be dispensed with inasmuch as these minutes were published in the June, 1957, issue of the Rocky Mountain Medical Journal. This motion was seconded and carried. It was then moved by Dr. Brewer that the minutes of the Interim Session held in Helena on March 30 be approved as published in the Rocky Mountain Medical Journal. This motion was seconded and carried.

The Chairman of the Nominating Committee, A. R. Kintner, M.D., presented the names of the following members of this Association as the nominees of the Committee for the offices indicated:

President-Elect: Herbert T. Caraway, M.D., Billings.  
Vice President: Leonard W. Brewer, M.D., Missoula.  
Secretary-Treasurer: T. R. Vye, M.D., Billings.  
Assistant Secretary-Treasurer: W. E. Harris, M.D., Livingston.  
Executive Committee: George W. Setzer, M.D., Deer Lodge, and Edward S. Murphy, M.D., Missoula.

President Murphy announced that members of the House of Delegates would have an opportunity to nominate additional candidates from the floor immediately preceding the election which would

be held at a subsequent session of this Annual Meeting.

Raymond F. Peterson, M.D., Delegate to the American Medical Association, read a report upon the actions of the House of Delegates of the American Medical Association at its meeting in New York, New York, during June. This report was referred to the Reference Committee on Officers, Meetings and Administration for study by President Murphy.

### Report of Secretary-Treasurer

T. R. Vye, M.D., read the following report of the Secretary-Treasurer which was referred to the Reference Committee on Officers, Meetings and Administration for study by President Murphy:

Just as life expectancy continues to increase, so the activities and duties of your Association's office continue to increase. Since the Interim Session it has been necessary to employ the second full-time stenographer and your Executive Secretary is a very busy man. As I have said before, and again wish to mention, we are fortunate to have an individual, namely, Mr. Hegland, who is as versatile and capable as he has proven to be. One of the major projects of the last six months has been the correlation of data and preparation of the schedule of fees as recommended by the Economic Committee and approved by this House in March. Especial thanks is in order to the Committee and its Chairman, Leonard W. Brewer, M.D., for the tremendous amount of time spent on this project. It is our hope at this writing that copies of the schedule will be available for distribution at this meeting.

This office continues to support and promulgate the free enterprise system in medicine because of its proved advantages; to be on the alert to oppose all efforts of governmental control; and to maintain those advantages which have been gained. It will in the future strive for continuing progress.

The annual session of the American Medical Association, held in New York during June, was attended by your President, Secretary-Treasurer, and your Executive Secretary, as well as your delegate and the alternate delegate. At these meetings the entire time of your Executive Secretary and elected Secretary was spent listening to the actions of the House so that we might bring back to Montana that which may be vital to our own Association.

On returning from New York, your President, Secretary and Executive Secretary attended the Rocky Mountain Medical Conference held in Jackson, Wyoming. There the Continuing Committee voted to extend an invitation to Montana to sponsor this meeting in 1959. Since that time your Executive Committee has met and voted to decline the invitation because none of our cities or recreational areas offered sufficient facilities for this large a group. This decision was made after investigation of all of the facilities available.

The membership of your Association has continued its gradual and steady growth and the number of physicians engaged in the active practice of medicine in Montana is increasing in proportion with the increasing population of our State. As of September 1, there were 523 active members of your Association in good standing for the year 1957. In addition, there were seven honorary members and forty-one inactive members. During the balance of this year there will probably be a slight additional increase in the number of members in good standing since there are at present twelve delinquents. The steady growth in the number of active, dues-paying members of your Association is attested by the following record of membership for the year indicated: 1952—451; 1953—460; 1954—472; 1955—503; 1956—523.

During the current year, there have been several unexpected expenses not included in the budget of your Association for this year because of special meetings and special projects. The growth in membership, however, has resulted in some additional income from dues and there has been a larger income than budgeted from the sale of exhibit space at this annual meeting. Because of these increased revenues, your Treasurer is of the opinion that the expenses of operation of the Association for the year will not exceed its revenue. On September 1 the cash balance of funds of your Association on deposit in Billings amounted to \$16,211.21. In addition, your Association has funds of \$15,000 invested in United States Government Bonds and a balance in its savings account of \$8,735.34.

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a very superior brandy...  
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**HENNESSY**  
COGNAC BRANDY

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My patients complain that the effect of the pain tablet I prescribe often wears off in less than 3 hours.

*Why not try the new analgesic that gives faster, longer-lasting pain relief?*

You mean something that doesn't require repeat dosage so often?

*Yes—it's called Percodan.<sup>®</sup> It not only works in 5 to 15 minutes but one tablet sustains its pain-relieving effect for 6 hours or longer!*

How about side effects?

*No problem. For example, the incidence of constipation is rare with Percodan.\**

Sounds worth trying—what's the average adult dose?

*One tablet every 6 hours. That's all.*

Where can I get literature on Percodan?

*Just ask your Endo detailman or write to:*



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WHO SUFFERS  
IN THE  
MENOPAUSE  
DESERVES  
"PREMARIN"

*widely used  
natural, oral  
estrogen*

AYERST LABORATORIES  
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### President's Report

Edward S. Murphy, M.D., read the following report of the President, which was then referred by him to the Reference Committee on Officers, Meetings and Administration:

It has become the custom for the President of the Montana Medical Association to render an account of his stewardship at the close of his term as President. In compliance with this custom, I shall render this necessarily short account.

On October 27, 1956, I attended and presided over a meeting of the Executive Committee held in Billings.

On November 28 and 29, I attended the Clinical Session of the American Medical Association in Seattle and had the pleasure of being present when our beloved Edward M. Gans, M.D., was named the General Practitioner of the Year by the A.M.A. Board of Trustees and was awarded a gold medal.

On December 8, I attended the meeting of the Board of Trustees of Montana Physicians' Service in Helena; on December 10, I attended a meeting and addressed the medical staff of St. Vincent's Hospital in Billings. Again on December 20, I met with the medical staff of the Columbus Hospital in Great Falls and addressed that group. These were annual meetings of these hospital staffs.

On January 7, 1957, I attended the Rehabilitation Conference in Helena and on January 12 attended and presided over an Executive Committee meeting held in Helena.

On March 28, the Interim Session of this Association was held in Helena. There was also a meeting of the Executive Committee and the House of Delegates at which I also presided.

On May 10 and 11, I attended the Medical-Legal Institute in Butte.

On June 15 to 19, I attended the Rocky Mountain Medical Conference in Jackson Lake Lodge and presided over the scientific meeting on Tuesday, June 18. This is an honor given to the President of each one of the medical associations comprising the Rocky Mountain Medical Conference.

On July 20, I attended and presided over a meeting of the Executive Committee held in Billings.

I realize that one of the duties of the President is to attend meetings of the various component societies. This is a very difficult thing to do, inasmuch as the component societies never invite the President or give him any information as to when a meeting is to be held. This was not true, however, of one of our component societies, namely the Flathead County Medical Society, which made every effort to arrive at a meeting date which did not conflict with my own itinerary. It is respectfully suggested that if the component societies desire the President to visit them, they make some effort to notify him of the meeting and when it may be convenient to have him present.

Finally, it is my pleasant duty to thank the officers, especially the Secretary and the Executive Secretary of the Montana Medical Association, the chairmen of the various committees and all of the members thereof, for their hearty cooperation and the good work they have done throughout the past year. It has been a genuine pleasure to work with them and no one could have been more adequately supported nor more willingly assisted. I do thank them very much. I am also deeply sensible of the great honor which the Association in general has conferred upon me.

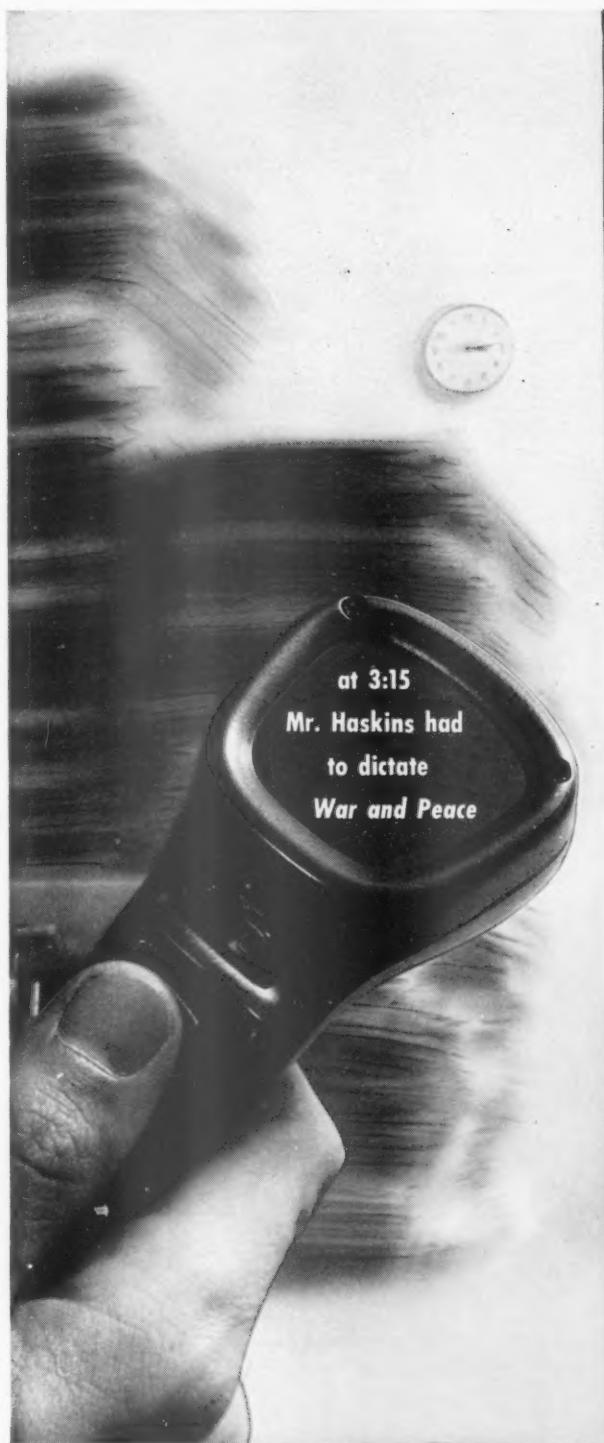
### Executive Committee Report

Secretary Vye read the following report of the Executive Committee, which was referred to the Reference Committee on Officers, Meetings and Administration for study by President Murphy:

Since the Interim Session of your Association in Helena on March 30, your Executive Committee met in Billings on July 20 to transact certain business requiring immediate action and will meet in Missoula on September 18 to prepare recommendations on several items of business for consideration of the House of Delegates.

At its meeting on July 20, the Committee reviewed the communication from Mr. V. A. Burr, Director of the Division of Public Assistance of the State Department of Public Welfare, a copy of which was sent to all component societies of this Association, reporting that plans to develop medical care programs in each Montana county that would result in securing federal matching funds for vendor payments, had been discontinued. During the discussion of this notification from Mr. Burr, it was agreed that the opinion of the Committee should remain unchanged and that participation in such plans should be determined by component medical societies of this Association after negotiation and approval by their member-





To cut daytime lethargy  
(and keep rauwolfia potency)  
in treatment  
of hypertension:

Additional clinical evidence<sup>1</sup> supports the view that HARMONYL offers full rauwolfia potency coupled with much less lethargy. In a new comparative study HARMONYL was given at the same dosage as reserpine and other rauwolfia alkaloids. Only one HARMONYL patient in 20 showed lethargy, while 11 patients in 20 showed lethargy with reserpine; 10 in 20 with the alseroxylon fraction.

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for your hypertensives  
who must stay on the job  
**Harmonyl**  
while the drug works effectively . . .  
so does the patient

\*Trademark for Deserpidine, Abbott

1. Winsor, Travis: Comparative Effects of Various Rauwolfia Alkaloids in Hypertension; submitted for publication.

ship, provided such plans permitted free choice of physician to the welfare patients and that such plans be based upon a realistic fee schedule.

At the suggestion of the Council on Medical Service of the American Medical Association, the members of the Executive Committee discussed the various plans for rendering medical care to veterans. It was agreed by the Committee that this Association would not negotiate with the Veterans Administration for an intermediary type contract for home town care for veterans with service connected disabilities, unless such negotiations permitted the use of our Average Fee Schedule as the basis for the negotiation of fees and unless the program proposed permitted the examining physician to proceed to furnish medical care to the veteran by providing whatever measures he believed necessary for the well-being of the patient. The members of the Executive Committee agreed that if this Association was contacted by the Veterans Administration to consider an intermediary type of home town care program, the President be authorized to appoint a special committee to conduct the necessary negotiations.

Upon the recommendation of the Chairman of the Committee on Necrology and History of Medicine, a payment of \$1,000 was authorized to the estate of Dr. Paul Phillips or to his widow for his editorial efforts in the publication of a history of Montana medicine provided that the estate or Mrs. Phillips agreed to release all of the historical material and the manuscript of the history to this Association without any further claim or without any royalty or copyright privileges. Such a release is now being drafted by our legal counsel and will be presented to the administrators of the estate for signature prior to any payment.

On August 31, your President, Edward S. Murphy, M.D., on behalf of the Executive Committee, as well as the members of this Association and the American Medical Association, presented awards to the managers of three Montana radio stations for their continued and frequent broadcast of health information material furnished by the Bureau of Health Education of the American Medical Association.

The Executive Committee has appointed E. H. Lindstrom, M.D., of Helena, to succeed James M. Flinn, M.D., deceased, as the representative of this Association on the Board of Directors of the Public Health League of Montana. This appointment has been accepted by Dr. Lindstrom, and your committee is sure that he will serve with distinction.

During the 1957 Rocky Mountain Medical Conference, which was held at Jackson Lake Lodge in Moran, Wyoming, this Association, through its officers, was invited by the Continuing Committee to serve as host and to sponsor the 1959 Rocky Mountain Medical Conference in Montana. Because the Continuing Committee requested final acceptance of this invitation by Montana as soon as possible and, in any event, before August 15, your Executive Committee, after a very thorough study and investigation of the facilities offered in all of the larger Montana cities and in both Yellowstone National Park and Glacier National Park, voted to decline with thanks the opportunity to sponsor the 1959 Conference. This action was taken by your Executive Committee because, in its opinion, adequate facilities for this Conference were not available in any Montana city or recreational area. As a result of this action, the 1959 Rocky Mountain Medical Conference will be sponsored by the Colorado State Medical Society.

The Executive Committee voted to schedule the 1958 Annual Meeting of this Association in Billings on September 11 to 13 unless information is received prior to January 1 that these dates conflict with other important medical meetings.

At the Interim Session, the House of Delegates adopted upon the recommendation of the Economic Committee, under the Chairmanship of Leonard W. Brewer, M.D., a plan for the revision and extension of our average fee schedule for medical and surgical services. This schedule has been prepared under the direction of the Economic Committee in accordance with the action by the House of Delegates. It is anticipated that the schedule will be printed by September 15 and that it will be ready for distribution to all Montana physicians shortly after adjournment of this meeting. This fee schedule will be published as a loose-leaf volume so that revisions and amendments to it may be made more readily and economically. The Executive Committee has authorized the purchase of an attractive and suitable three-ring binder for this schedule and has voted that the binder be furnished to dues-paying members of this Association in good standing for the year 1957 without charge and that non-members of the Association or members whose dues are waived for any reason may purchase it through the Executive Office at a cost of \$2.50. Additional binders will be available to any physician or group at the same cost.

The members of the Executive Committee are very cogni-

# Annual Clinical Conference

CHICAGO MEDICAL SOCIETY

MARCH 4, 5, 6 and 7, 1958

Palmer House, Chicago

Daily Half-Hour Lectures by Outstanding Teachers and Speakers on subjects of interest to both general practitioner and specialist

Panels on Timely Topics

Daily Teaching Demonstrations

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Scientific Exhibits worthy of real study and helpful and time-saving Technical Exhibits

The Chicago Medical Society Annual Clinical Conference should be a **MUST** on the calendar of every physician. Plan now to attend and make your reservation at the Palmer House.

# 'Dexamyl' quieted the symptoms of premenstrual tension

(from the case records of a Philadelphia general practitioner)

The Patient: 28-year-old housewife  
with no organic disease and  
a non-contributory history.

Presenting Complaints: Dome-like  
headaches, severe fatigue, pelvic  
cramps and an "all pervading  
nervousness" associated with the  
onset of menses.

Diaznosis: Pre-menstrual tension.

Treatment: 'Dexamyl'; one tablet  
b.i.d., for several days before the  
expected menses.

Results: Symptoms lessened to the  
vanishing point. Patient particularly  
pleased to be relieved of the  
periodic headache and pelvic cramps.

Smith, Kline & French Laboratories,  
Philadelphia

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*Dexamyl\* tablets-elixir  
Spansole† capsules*

\*T.M. Reg. U.S. Pat. Off

†T.M. Reg. U.S. Pat. Off. for sustained release capsules, S.K.F.

zant of the accomplishments of the Chairman of the Economic Committee, Leonard W. Brewer, M.D., in completing the many details necessary for the publication of this improved and revised schedule. It extends to Dr. Brewer and to each member of his Committee a sincere vote of thanks and appreciation.

### Supplemental Report

The following supplemental report of the Executive Committee was then read by Secretary Vye. This supplemental report was referred to the Reference Committee on Officers, Meetings and Administration for study by President Murphy:

At the meeting of the Executive Committee on Wednesday, September 18, the reports of the several committees requesting an appropriation of funds were reviewed. Members of the House of Delegates will recall that it is customary for the Executive Committee to submit its recommendations upon such requests prior to final action by the House.

The Public Relations Committee, in its report, requested sufficient funds to publish an informative brochure for distribution to patients and physicians. This brochure, it is anticipated, will be of distinct value to patients and will promote more friendly relations between the medical profession and the public. Such brochures have been published in many other states and have been a distinct aid in the promotion of good public relations. The Executive Committee recommends approval of a reasonable appropriation for the publication of this booklet.

Both the Emergency Medical Service Committee and the Rural Health Committee requested the appropriation of funds to defray the travel expenses of the chairman of the committee or of a representative of the committee to national meetings. Since the financial position of the Association does not permit the Executive Committee to approve all of the requests for such travel allowances for all committee chairmen, it is the recommendation of the committee that the House of Delegates do not authorize the appropriation of funds to defray the travel expenses of representatives of these two committees to these national meetings. The Execu-

tive Committee is cognizant of the value of national meetings of persons interested in civil defense, rural health, etc., but because there are eight or ten such national meetings each year, the Executive Committee does not feel that it is wise to approve such appropriations unless the financial position of the Association permits approval of all such requests. The committee believes that it is unwise to establish a precedent that will permit the chairmen of one or two of the committees of this Association to attend such national meetings until the financial position of the Association permits the attendance of the other committee chairmen at similar meetings.

The Executive Committee considered carefully the request of the Committee on Highway Safety that this Association contribute, on a per capita basis, to the Montana Traffic Safety Council. While it enthusiastically endorses the purposes of the Council and is sympathetic to them, the committee does not believe that a per capita contribution should be made by this Association. It, therefore, recommends that the House of Delegates do not approve such an appropriation but that it encourage physicians as individuals to join the traffic safety council in their own community and that they support it financially.

H. M. Clemmons, M.D., Butte, introduced a resolution about amendment of the compensation statutes in Montana to provide for the rehabilitation of the injured industrial workers. This resolution was referred to the Reference Committee on Health and Welfare for study by President Murphy.

Mr. John Pompelli, Assistant Managing Editor of the Rocky Mountain Medical Journal, read a report upon the financial condition, circulation and publication of the Journal. This report was referred by President Murphy to the Reference Committee on Affiliated Organizations for study.

The first session of the House of Delegates recessed at 9:45 a.m.



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For the care and treatment of Psychiatric disorders.  
Individual and Group Psychotherapy and Somatic Therapies.  
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Thomas J. Hurley, M.D., Robert W. Davis, M.D.

SECOND SESSION  
September 20, 1957

The second session of the 79th Annual Meeting of the House of Delegates of the Montana Medical Association was called to order by Edward S. Murphy, M.D., President, at 3:30 p.m. in the Lodge of Montana State University, Missoula.

Following the roll call, the Secretary, T. R. Vye, M.D., announced that a quorum was present.

H. M. Clemmons, M.D., of Butte, introduced a resolution proposing that this Association support any effort to change the name of the State Laboratory building to the Cogswell Memorial Laboratory building. This resolution was referred for study to the Reference Committee on Resolutions and New Business by President Murphy.

A. R. Little, M.D., of Helena, introduced a resolution requesting that the President of this Association be empowered to appoint a special committee to determine the desirability and need for the establishment of a standing committee of this Association on medical care at custodial institutions of Montana. This resolution was referred by President Murphy to the Reference Committee on Health and Welfare for study.

M. A. Gold, M.D., of Butte, introduced a resolution about the interpretation and payment of diagnostic chest radiographs by the Montana Tuberculosis Association. President Murphy referred this resolution to the Reference Committee on Scientific Work for study.

*Reference Committee on Officers,  
Meetings and Administration*

The following report was presented by M. A. Gold, M.D., of Butte, Chairman of the Reference Committee on Officers, Meetings and Administration:

This reference committee considered carefully the various reports referred to it and would like to congratulate each of these committees and the committee chairmen upon the quality of their reports. Your reference committee submits the following report:

*Report of the Delegate to the American  
Medical Association*

Dr. Peterson, in his report which was read during the first session, has submitted no recommendations. Your reference committee, therefore, suggests that this report be received and placed on file.

Dr. Gold moved the adoption of this portion of the report. This motion was seconded and carried.

*Report of the Secretary Treasurer*

T. R. Vye, M.D., Secretary-Treasurer of this Association, in his report, submitted no recommendations for action by the House of Delegates. Your reference committee, therefore, recommends that the report be received and placed on file.

Dr. Gold then moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

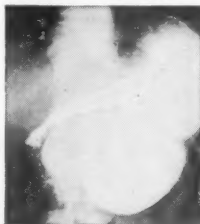
*Report of the Program Committee*

The recommendations of the Program Committee are, 1) that the Vice Chairman of the Program Committee, who is to become its chairman the following year, be appointed one year in advance; 2) that the Vice Chairman of the Program Committee begin immediately upon his appointment to obtain speakers for the meeting two years hence. Your reference committee concurs heartily with these recommendations.

The Program Committee also recommended that more use

when anxiety and tension "erupts" in the G. I. tract...

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*Combines Meprobamate (400 mg.) the most widely prescribed tranquilizer . . . helps control the "emotional overlay" of gastric ulcer — without fear of barbiturate loginess, hangover or habituation . . . with PATHILON (25 mg.) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.*

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*Supplied:* Bottles of 100, 1,000.



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be made of professional movies on the scientific program of the Interim Session. This, in the opinion of the reference committee, is an excellent suggestion and this committee recommends that it be referred to the new Program Committee for its consideration.

Dr. Gold moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

#### Report of the Executive Committee

This committee, in its report upon medical care for veterans, recommended that if this Association is contacted by the Veterans Administration to consider an intermediary type of home town care program, the President be authorized to appoint a special committee to conduct the necessary negotiations. This committee concurs in this action and recommends the approval of this proposal.

The Executive Committee also recommends that a reasonable appropriation be allowed the Public Relations Committee for publication of an informative booklet about medical care for distribution to patients by physicians. Your reference committee concurs with this recommendation. In addition, the Executive Committee recommends that the House of Delegates do not authorize the appropriation of funds to defray travel expenses of representatives of the Emergency Medical Service Committee and the Rural Health Committee to national meetings. This reference committee concurs with this proposal and recommends its approval by the House.

Dr. Gold moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

#### Report of the President

The President of this Association, Edward S. Murphy, M.D., in his report, has submitted no recommendations for action by this House. It is suggested by your reference committee, however, that component medical societies of this Association notify the President when they plan monthly meetings so that he may attend at least one meeting of each component society during his administrative year. Your reference committee is of the opinion that this is an excellent suggestion and urges component society officers to adopt it.

Dr. Gold moved the adoption of this portion of the report

of the reference committee. This motion was seconded and carried.

Dr. Gold then moved the adoption of the report of the Reference Committee on Officers, Meetings and Administration as a whole. This motion was seconded and carried.

#### Reference Committee on Legislation and Public Relations

The following report was presented by F. D. Hurd, M.D., Chairman of the Reference Committee on Legislation and Public Relations:

This reference committee reviewed the reports of the Mediation Committee, the Rural Health Committee and the Public Relations Committee. Inasmuch as the reports of these standing committees of the Association contained no recommendations except requests for appropriations which have already been acted upon by this House, your reference committee recommends that these reports be received and ordered placed on file.

Dr. Hurd moved the adoption of this report of the Reference Committee on Legislation and Public Relations. This motion was seconded and carried.

#### Reference Committee on Legal Affairs and Professional Relations

The following report was presented by Raymond F. Peterson, M.D., Chairman of the Reference Committee on Legal Affairs and Professional Relations:

This reference committee considered in detail each of the following committee reports:

#### Committee on Necrology and History of Medicine

This committee reported the death of six physicians in Montana but your reference committee wishes to amend the report by the addition of the name of L. R. Packard, M.D., of Whitehall, who died on July 1. The names of the physi-

continued on 132c

Active relief  
in  
cough  
both allergic and infectious

# HYDRYLLIN<sup>®</sup> COMPOUND

- allays bronchial spasm
- liquefies tenacious secretions
- suppresses allergic manifestations

The ingredients of Hydryllin Compound are proportioned to provide high therapeutic response.

Each 4 cc. (one teaspoonful) contains:

Aminophyllin . . . . .	32.0 mg.	Chloroform . . . . .	8.0 mg.
Diphenhydramine . . . . .	8.0 mg.	Sugar . . . . .	2.8 Gm.
Ammonium chloride . . . . .	30.0 mg.	Alcohol 5% (v/v)	

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(Ristocetin, Abbott)

A new, important antibiotic, SPONTIN, is now being made available—in limited supply—to the medical profession.

Discovered and developed by Abbott Laboratories, SPONTIN proved highly effective—even lifesaving—in clinical trials with *patients in whom other antibiotics had failed.*

Because of intricate and technical production problems, only a limited supply of SPONTIN is available currently. But, as soon as these problems are solved, SPONTIN will be offered to all hospitals.

For, essentially, SPONTIN is a drug for hospital use—for patients who are seriously ill, or even dying, from organisms that have become resistant to present-day therapy.

In its present form SPONTIN is administered intravenously, using the drip technique. The required dosage is dissolved in 5% Dextrose in water and administered in 35 to 40 minutes.

You'll find SPONTIN effective against a wide range of gram-positive coccal infections. And especially in those dangerous staphylococcal problems that resist other antibiotics. Some of the important therapeutic points include:

- 1) *successful short-term therapy for acute or subacute endocarditis*
- 2) *new antimicrobial activity—no natural resistance to SPONTIN was found in tests involving hundreds of coccal strains*
- 3) *antimicrobial action against which resistance is rare—and extremely difficult to induce*
- 4) *bactericidal action at effective therapeutic dosages.*

SPONTIN comes as a sterile, lyophilized powder in vials representing 500 mg. of ristocetin A activity. While distribution is limited, your emergency needs will be handled by your Abbott representative, or at the nearest Abbott branch. Literature is available on request.

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## Organization cont. from 1322

cians who have died since the 1957 Interim Session include the following:

A. D. Brewer, M.D., Kalispell, April 20.  
Harvey L. Casebeer, M.D., Butte, April 27.  
James M. Flinn, M.D., Helena, May 6.  
L. R. Packard, M.D., Whitehall, July 1.  
Omer C. Rathman, M.D., Billings, July 12.  
George F. Turman, M.D., Missoula, July 12.  
Maurice E. Keenan, M.D., Great Falls, July 18.

Let us rise and pause in silence for a moment of reflection in memory of our past pleasant associations with these men who spent their lives as our colleagues, easing the burdens of man, true sons of Aesculapius.

Progress is reported upon the history of Montana medicine which should be completed in the near future.

Dr. Peterson moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

### Committee on Medical-Legal Institute

This committee recommends that the Medical-Legal Institute be rotated between the three larger cities in Montana, Butte, Great Falls, and Billings, and that the 1953 Institute be scheduled in Great Falls at a date to be set subsequently. This reference committee wishes to commend the Medical-Legal Institute Committee upon the excellence of the recent Institute in Butte and upon its financial report, which estimates a surplus of approximately \$150 for this year. This committee urges that all members of the Association make every effort to attend these excellent meetings, which are beneficial to both professions and are most valuable in promoting good public relations.

Dr. Peterson moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

### Economic Committee

This committee reports as information that all Montana physicians will soon be mailed a copy of the new Average

Fee Schedule of the Association. Your reference committee feels that no action is necessary upon this report.

### Rocky Mountain Medical Conference Committee

This committee reports that the Association, through its Executive Committee, declined sponsorship of the 1959 Rocky Mountain Medical Conference because of the lack of adequate and suitable facilities for such a large meeting. In the opinion of your reference committee, no further action seems necessary.

### Legal Affairs Committee

This committee reports that it is continuing its study of the New York Plan for the preparation and presentation of medical-legal testimony by impartial court-appointed expert witnesses and suggests that all information and progress be forwarded to the succeeding committee so that final action may be taken upon this proposal before the 1959 Legislative Assembly convenes. The Chairman of the Legal Affairs Committee, Park W. Willis, M.D., was called to Seattle during May, 1957, and has informed the committee that the premiums for professional liability insurance in Washington are considerably lower than they are in Montana. The Acting Chairman, F. S. Marks, M.D., assumed the duties of the chairman in May and his report includes commendation of Dr. Willis for his "vigor, enthusiasm and skill" in conducting the affairs of the committee. The Legal Affairs Committee, this reference committee and only a small group of physicians in Montana are well aware that there is litigation in the courts concerning professional liability in Montana. The booklet entitled "Liability" published by the Association and sent to all Montana physicians, contains much valuable information, which should be a guide to everyone who feels that there may be a suit filed against him or that he may be called upon to give testimony in a liability action. Your reference committee commends this booklet to you and urges that you review it carefully.

Dr. Peterson moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

Dr. Peterson then moved the adoption of the report of the Reference Committee on Legal Affairs and Professional Relations as a whole. This motion was seconded and carried.

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## Reference Committee on Affiliated Organizations

The following report of the Reference Committee on Affiliated Organizations was presented by John A. Newman, M.D., Chairman:

Your Reference Committee on Affiliated Organizations gave careful consideration to the reports referred to it. It should be noted that all of these reports are from representatives of the Montana Medical Association to various voluntary health groups and are not reports of committees of the Montana Medical Association per se. All of these committees are lay committees and our representatives merely bring back the reports of their activities. Several of the committees including the Joint Committee for the Improvement of the Care of the Patient and the Montana Committee for the Employment of the Physically Handicapped did not meet this year and hence no report is forthcoming about their programs.

The report of the Public Health League of Montana ordinarily would have been submitted by our good friend and Past President, James M. Flinn, M.D., but because of his untimely death, it was submitted by the Manager of the League, Mr. Duane W. Bowler. Your reference committee would like to congratulate this League on its efforts to maintain Montana's high medical standards and upon its presentation of the facts of medical practice to the 35th Legislative Assembly. This committee also wishes to congratulate the staff of the Public Health League upon the continued excellence of its publication, "Montana Health."

Dr. Newman moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

W. G. Tanglin, M.D., our representative to the Montana Health Planning Council, submitted an excellent report of its activities during the past year. Although no resolution or recommendations are forthcoming, we believe this report is worthy of each delegate's review for informational purposes.

Dr. Newman moved the adoption of this portion of the report of the reference committee. The motion was seconded and carried.

Your Montana representative to the American Medical Education Foundation, Raymond F. Peterson, M.D., has been

active this year. Every physician in the State of Montana received a stamped return envelope asking for his annual contribution to the A.M.E.F. As is pointed out, Montana's average voluntary donation to the A.M.E.F. is one of the highest in the Union and it is hoped by the reference committee that this high rate of contribution will be continued. The "Pay As You Go" or quarterly payment of these contributions seems to be particularly attractive and it is hoped that the American Medical Education Foundation Committee will be conscientious in sending out follow-up letters to those indicating that they desire to donate quarterly or at other regular intervals.

This reference committee recommends that the House of Delegates continue its approval of this voluntary tax-free investment in the medical schools of our country via the American Medical Education Foundation and urges the continued support to that end by all members of the Montana Medical Association.

Dr. Newman moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

The report of your representative, W. S. Wilder, M.D., to the Advisory Committee on Narcotic and Alcohol Education was received. It is noted that definite recommendations will be forthcoming to this House of Delegates before its 1951 meeting is held so that, at that time, perhaps certain action will be in order. This committee is confronted with the problem of whether to expand its activities beyond that of education and of securing necessary funds if such an expansion is undertaken. No recommendations were submitted or are in order at this time.

Dr. Newman moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

The report of the Managing Editor of the Rocky Mountain Medical Journal was received and reviewed with care. This reference committee is happy to learn that there is a surplus in the reserve account and that an increase in the subscription price is not contemplated in the immediate future.

Dr. Newman moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

Dr. Newman then moved the adoption of the report of the Reference Committee on Affiliated Organizations as a whole. The motion was seconded and carried.

continued on 1332

when anxiety and tension "erupts" in the G. I. tract...

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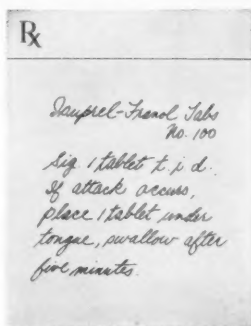
Isuprel HCl (10 mg. for adults, 5 mg. for children), the most potent bronchodilator known, makes up the outer coating. In a sudden attack, the patient puts the tablet under his tongue. Relief starts in 60 seconds. A unique feature is the "flavor-timer." As the Isuprel is absorbed a lemon flavor appears. When it disappears — about five minutes later — the patient swallows the tablet.

An unexcelled combination for prolonged bronchodilatation makes up the Isuprel-Franol core: benzyephedrine HCl (32 mg.), Luminal<sup>®</sup> (8 mg.) and theophylline (130 mg.). Swallowed, the tablet works for four hours or more.

Isuprel-Franol tablets are "... effective in controlling over 80% of patients with mild to moderate attacks of asthma."<sup>1</sup>

Fromer, J. L., and DeRiso, J.: *Lahey Clin. Bull.* 10:45, Oct-Dec., 1956.

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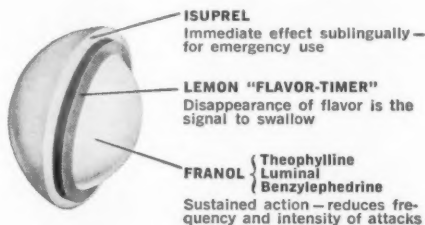


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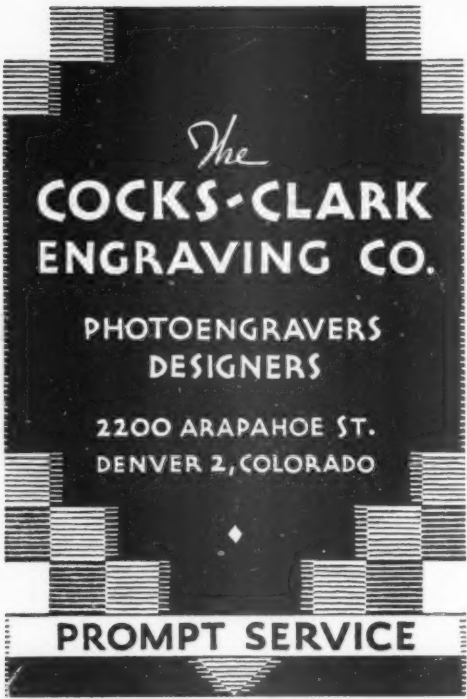
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## Organization cont. from 1333

port of the Reference Committee on Health and Welfare as a whole. The motion was seconded and carried.

### Reference Committee on Scientific Work

The following report of the Reference Committee on Scientific Work was presented by S. C. Pratt, M.D., Chairman:

The reference committee reviewed carefully the reports referred to it and submits the following suggestions and recommendations upon them:

#### Fracture and Orthopedic Committee

This committee, in its report, submitted the following suggestions and recommendations:

1) That inasmuch as it is desirable for the same orthopedist to see children with orthopedic problems for several years consecutively rather than to have these children see different orthopedists at the time of the crippled children's clinics in this State, the Fracture and Orthopedic Committee recommends that the House of Delegates vote to suggest to the State Board of Health that the crippled children's clinics be discontinued and that in lieu thereof the patients be referred to the nearest available orthopedist of the patient's choice after careful study by the appropriate social agency.

2) That the Fracture and Orthopedic Committee act in an advisory capacity to all appropriate governmental agencies such as the Industrial Accident Board, the State Board of Health and its Division of Child Health Services. The committee has also suggested that it may be desirable, in order to improve fracture and orthopedic care of patients throughout Montana, that it develop a series of postgraduate lectures for presentation at meetings of component medical societies.

3) This committee recommends very strongly that the orthopedists serving as participating consultants to the Montana Tuberculosis Sanitarium meet with the Superintendent to discuss clarification and improvement of the orthopedic care now being rendered at the Sanitarium.

4) This committee recommends that the physician to whom the Division of Child Health Services refers patients be responsible for the selection of proper braces and prosthesis makers.

5) The Fracture and Orthopedic Committee favors an equitable distribution of the fee for initial and follow-up care of referred or transferred cases of patients covered under the rules and regulations of the Industrial Accident Board. This committee recommends that a subcommittee of the Fracture and Orthopedic Committee be appointed by its chairman to cooperate with the chairman of the Industrial Accident Board in such cases.

Your reference committee feels that all of these proposals are valid and worthy of favorable action by the House of Delegates. It believes that only one fails to meet fully the current problem; that one concerns the distribution of fees in industrial accident cases where more than one physician and a fixed fee are involved. Your reference committee proposes that a subcommittee of the Fracture and Orthopedic Committee be appointed by its chairman to meet with the chairman of the Industrial Accident Board for the purpose of establishing a new policy whereby each of the physicians attending, in sequence, a fixed fee case, will be paid his equitable portion of the fee directly by the Industrial Accident Board.

Dr. Pratt moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

#### Committee on Arthritis and Rheumatism

Your Committee finds no occasion to recommend any major alteration in the report of this committee. It recognizes the apparent apathy throughout Montana upon this problem and suggests that more active and larger working groups among the laymen coordinated with more active participation of professional members may help to provide the required stimulus. Your reference committee feels that the teams of arthritic specialists as mentioned in the report would aid in producing a stimulus to further the work of the Foundation. Your reference committee is aware of only one component society that has invited this team to its meeting. When such teams are invited to meetings of a component society, the use of television and public meetings may prove helpful in stimulating public interest. Your reference com-

mittee also suggests that the activities of the Rocky Mountain Chapter of the Arthritis and Rheumatism Foundation be documented and publicized so that the professional and lay population of Montana may become aware of the potential usefulness of this organization.

Dr. Pratt moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

#### Committee on Blood

This reference committee is not unanimous in its opinions upon the Red Cross Blood Bank Program just as physicians across the State are not unanimous in their opinions. Your committee feels, however, that the Montana Medical Association should continue through its Committee on Blood, to approve the program and to allow the individual communities the choice of participation and utilization rather than have a higher echelon of organized medicine dictate. The Committee on Blood is fulfilling a very useful function in continuing its surveillance of a program that concerns the physicians and patient population of Montana so vitally. Your reference committee feels that the Committee on Blood should carefully observe the publicity that is attendant to any expansion of the program and the cooperation of the public with this "neighbor helping neighbor" program. Your committee feels that the public should become aware of the fact that blood itself is provided at no charge but that the cost of processing, administering, etc., are a just and necessary expense to be met by the patient. If this is fully understood, it seems to your reference committee that there will be no unjust criticism and no unjustified complaints upon the cost of this program. Your reference committee agrees that Montana should not join the American Association of Blood Banks inasmuch as there is already adequate interchange and reciprocity between Montana communities. It further agrees that the more any program is conducted on a local level, the better such program will become.

Dr. Pratt moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

#### Cancer Committee

Your reference committee heartily agrees with the Cancer Committee upon the questionable value of statistical studies and follow-up studies on cancer cases in Montana and believes that such studies represent a costly, time-consuming and useless expenditure of money and effort. Your reference committee is very interested in the proposed study and report by a limited group of Montana physicians upon the publication entitled "Book on Cancer—A Manual for Practitioners" and the proposed evaluation upon this volume by Montana physicians. Your reference committee believes that a summary of this evaluation should be submitted upon completion of this project.

Dr. Pratt moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

#### Maternal and Child Welfare Committee

Your reference committee recognizes the detailed study required for the consideration of all pre-natal and post-natal deaths and commends this committee for its worthwhile effort. Your reference committee feels that the very limited attendance at the Institute on Maternal and Newborn Care which was held in Helena, June 9-10, was regrettable and suggests, as a possible remedy, that in the future the dates of such institutes be made public at least three months in advance and that follow-up publicity and announcements be made at frequent intervals.

Dr. Pratt moved the adoption of this portion of the report of the reference committee. This motion was seconded and carried.

#### Tuberculosis Committee

Your reference committee realizes that this report represents a worthy continuation of a program to control a disease that is still not eradicated. It suggests that the Tuberculosis Committee obtain a legal opinion and an understandable clarification of the statutes as they now exist in Montana upon the incarceration of an active tuberculous patient who refuses quarantine or treatment. Your reference committee is of the opinion that the majority of the physicians in Montana would welcome a report by this committee at the Interim Session, upon these statutes and would, in addition, welcome information about the proper legal procedures to be followed in such cases.

Dr. Pratt moved the adoption of this portion of the report

of the reference committee. This motion was seconded and carried.

Your reference committee has not received reports from either the Rheumatic Fever and Heart Committee and its subcommittee on the Cardiac Diagnostic Center or the Mental Hygiene Committee. It regrets being unable to report upon the activities of these committees but trusts that their reports will be forthcoming at the Interim Session.

Dr. Pratt moved the adoption of the report of the Reference Committee on Scientific Work as a whole. This motion was seconded and carried.

The second session of the House of Delegates recessed at 4:30 p.m.

#### THIRD SESSION

September 21, 1957

The third session of the 79th Annual Meeting of the House of Delegates of the Montana Medical Association was called to order by Edward S. Murphy, M.D., President, at 1:45 p.m. in the Mayfair Room of the Florence Hotel, Missoula.

Following the roll call, the Secretary, T. R. Vye, M.D., announced that a quorum was present.

On behalf of the Montana Trudeau Society, M. A. Gold, M.D., read the following letter:

The Montana Trudeau Society wishes to commend the Montana Medical Association for its action establishing a special Committee on Postgraduate Medical Education. The Society, at its meeting on September 21, voted unanimously to appropriate \$500.00 to be used by this Committee on Postgraduate Education to bring speakers on chest diseases to



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Murphy then called for additional nominations for the office of Secretary-Treasurer. There being no additional nominations, it was regularly moved, seconded and carried that the nominee of the Nominating Committee, T. R. Vye, M.D., be elected unanimously to the office of Secretary-Treasurer. Additional nominations were called for by President Murphy for the office of Assistant Secretary-Treasurer but no additional nominations were presented. It was regularly moved, seconded and carried that the nominee of the Nominating Committee, W. E. Harris, M.D., be elected unanimously to the office of Assistant Secretary-Treasurer.

It was regularly moved, seconded and carried that the Secretary be instructed to write a congratulatory letter to Park W. Willis, M.D., immediate past Assistant Secretary-Treasurer, for his many accomplishments in this office and devotion to his profession and organized medicine.

President Murphy called for additional nominations of members to serve on the Executive Committee. There being no additional nominations, it was regularly moved, seconded and carried that the nominees of the Nominating Committee, Edward S. Murphy, M.D., and George W. Setzer, M.D., be elected unanimously to the Executive Committee.

The newly elected officers were then installed in their respective offices by President Murphy. John A. Layne, M.D., was then escorted to the rostrum by W. E. Harris, M.D., and Herbert T. Caraway, M.D., and installed as President by Edward S. Murphy, M.D. Dr. Layne, upon his acceptance of this office, stated that it would be a distinct privilege to serve Montana physicians and the Association and that he would do his best.

There being no further business, the House of Delegates adjourned, sine die, at 2:50 p.m.

The following delegates and alternate delegates attended these sessions of the House of Delegates:

*Cascade County Medical Society:* Drs. A. K. Atkinson, F. H. Crago, F. D. Hurd, John A. Layne, H. W. Fuller, T. C. Power, A. E. Ritt, W. J. Roberts, all from Great Falls.

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*Fergus County Medical Society:* Drs. Paul J. Gans, Lewistown, and E. M. Gans, Harlowton.

*Flathead County Medical Society:* Drs. R. A. Benke, Kalispell, and E. P. Higgins, Kalispell.

*Gallatin County Medical Society:* Drs. B. J. Heetderks, Jr., D. D. Parke, A. L. Vadheim, Jr., Paul H. Visscher, Deane C. Epler, all from Bozeman.

*Hill County Medical Society:* Drs. N. A. Franken, Havre, and C. W. Lawson, Havre.

*Lake-Sanders Counties Medical Society:* Ward E. Benkelman, M.D., Polson.

*Lewis and Clark Medical Society:* Drs. A. R. Little, J. J. McCabe, R. W. Morris, G. D. C. Thompson, all from Helena, and W. R. McElwee, Townsend.

*Mount Powell Medical Society:* Dr. L. M. Benjamin, Deer Lodge.

*Northcentral Montana Medical Society:* Drs. R. D. Mason, Conrad, and G. D. Waller, Cut Bank.

*Northeastern Montana Medical Society:* Drs. David Gregory, Glasgow, and B. P. Little, Glasgow.

*Park-Sweet Grass Medical Society:* Dr. W. E. Harris, Livingston.

*Silver Bow County Medical Society:* Drs. H. M. Clemmons, M. A. Gold, H. W. Gregg, H. H. James, J. A. Newman, R. F. Peterson, L. J. Rotondi, M. E. Tuchscherer, and V. A. Yaholkovsky, all from Butte.

*Southeastern Montana Medical Society:* Drs. B. C. Farrand, Jordan; S. A. Olson, Glendive; S. C. Pratt, Miles City, and E. H. Rowen, Miles City.

*Western Montana Medical Society:* Drs. H. A. Braun, L. W. Brewer, J. R. Armstrong, J. A. Evert, A. R. Kintner, L. E. Kuffel, J. M. Nelson, and J. R. Svore, all from Missoula.

*Yellowstone Valley Medical Society:* Drs. L. Bruce Anderson, W. A. Armstrong, Walker Honaker, Ross Lemire, J. D. Morrison, John A. Schaeffer, and Samuel Werner, all from Billings.



*Betty Swords*

"I could stand the negative phase, Doctor, if he just weren't so positive about it."

ROCKY MOUNTAIN MEDICAL JOURNAL



## News Briefs

Dr. A. E. Margulis of Santa Fe, New Mexico, and Dr. Paul K. Hamilton, Jr., Denver, have been elected Assemblymen to represent their respective states in a National Assembly, convoked by the Board of Governors of the College of American Pathologists, and which held its initial session at the annual convention of the College in New Orleans in early October. This new Assembly has been established to give the members of the College a better opportunity to express their wishes to the officers and governors on matters of policy and college affairs generally.

**Southern New Mexico Clinical Meeting**  
Sponsored by the Eddy County Medical Society,  
Carlsbad, New Mexico.

*Saturday, December 7, 1957*

### Morning

**9:00**—Registration: Blount's Restaurant.  
**9:15-9:35**—"Management of Burns," Rupert Pate, M.D., Carlsbad; George Markle, M.D., Carlsbad.  
**9:45-10:00**—"Jaundice in the Newborn," Catherine Armstrong, M.D., Carlsbad.  
**10:00-10:45**—"Complications of Labor and Delivery," Melvin Bivens, M.D., Albuquerque.  
**11:00-12:15**—Panel discussion: "Chest Pain." Moderator: Owen C. Taylor, M.D., Artesia. Members: Theodore Hauser, M.D., Carlsbad; Emmitt Jennings, M.D., Roswell; James P. Sullivan, M.D., Carlsbad.

### Afternoon

**12:30-2:30**—Luncheon followed by panel discussion on "Differential Diagnosis of Acute Abdominal Pain." Moderator: Al Haynes, M.D., Clovis. Members: Earl Flanagan, M.D., Carlsbad; Sol

Heinemann, M.D., Carlsbad; J. W. Hillsman, M.D., Carlsbad; Ross Manganaro, M.D., Carlsbad.

**2:45-3:30**—Evaluation of "Newer Methods in Laboratory Diagnosis," L. O. Dutton, M.D., El Paso; J. A. Hancock, Ph.D., El Paso.

**3:40-4:45**—Panel Discussion, "Management of Low Back Pain." Moderator: C. Pardue Bunch, M.D., Artesia. Members: Melvin Bivens, M.D., Albuquerque; Sol Heinemann, M.D., Carlsbad; R. W. McIntire, M.D., Carlsbad; W. N. Worthington, M.D., Roswell.

### Evening

**7:30** — Dinner at the Silver Spur Restaurant. Speaker: Capt. J. D. Mosely, M.D., Holloman Air

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Force Base. Topic: "Space Flight and Human Tolerances to Mechanical Forces."

This meeting has been approved for a credit of six hours in Category I by the American Academy of General Practice.

The registration fee of \$10.00 includes lunch and dinner. An additional \$2.50 will be charged wives and other non-registrants attending the dinner. Dr. C. E. Galt, 513 W. Fox Street, Carlsbad, New Mexico, may be contacted for further information.



### WOMAN'S AUXILIARY

Mrs. Aaron E. Margulis of Santa Fe represented the President of the Woman's Auxiliary to the AMA, Mrs. Paul C. Craig of Wyomissing, Pennsylvania, at the annual convention of the Washington State Auxiliary in Seattle, September 15-18.

Mrs. Margulis, a former President of the New Mexico Auxiliary, is now serving as National Chairman of Mental Health. In Seattle, she brought greetings from Mrs. Craig, spoke at the annual luncheon on "The Physician's Wife—A Generalist," and installed the new officers elected during the meeting.

Mrs. Harold V. Beighley of Albuquerque served as President of the Woman's Auxiliary to the American Society of Clinical Pathologists during the past year, and presided over the annual meeting of that organization in New Orleans at the beginning of October.



**BLUE CROSS  
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### Medical plan improved in New Mexico

W. H. Peacock, M.D.

In an attempt to keep up with and foresee changing economic conditions, both of the insured patient and the physician, a thorough revision of surgical and medical schedules of the New Mexico Physicians' Service Plan has been made by the Trustees and there has been a corresponding increase in the income limits for service benefits under the Plan.

In 1946, a family income of \$4,500.00 per year was considered fair for accepting a lower amount than the physician's usual charge. The rapidly shrinking purchasing power of the dollar makes \$6,000.00 now a conservative service limit for a family.

Assistance to the physician has been considerably more than an upward revision of the New Mexico Physicians' Service schedules. Two committees from the Trustees carefully considered each procedure and tried to fix a reasonable payment for it to correspond with the income of the patient. For patients whose incomes exceed the limit, the New Mexico Physicians' Service Plan applies as indemnity.

The inconvenience to patients and physicians alike in having exclusions and waiting periods nullify coverage is largely eliminated. Only injuries covered by Workmen's Compensation, or sustained during military service, or care in Government

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hospitals are excluded. Maternity is the only condition with a waiting period. Thus, patients who, in good faith join New Mexico Physicians' Service, are covered under a plan where the medical profession watches over their interests while protecting its own.

The mechanics of changing a large number of people to the new coverage are, necessarily, slow but when completed should present a fairly encouraging picture of the New Mexico Society's voluntary plan.



Springs Public Health Department and was Chief of Staff of Beth El (now Memorial) Hospital for thirty-two years until 1934, when he retired. He was a former President of the El Paso County Medical Society. He was surgeon for several railroad companies for many years and was active in public health work, particularly as it was related to tuberculosis.



## News Briefs

## Obituaries

### JOHN BRYANT HARTWELL

Dr. John Bryant Hartwell, aged 79, died of cerebroarteriosclerosis at Glockner Penrose Hospital, Colorado Springs, on July 15, 1957.

Dr. Hartwell was graduated from the Harvard Medical School in 1904 and was on the faculty of his Alma Mater for some time. Dr. Hartwell did general practice and surgery and was a member of the founders group of the American Board of Surgery and a fellow of the American College of Surgeons.

Dr. Hartwell was the Treasurer of the State Medical Society and a member of its Board of Trustees for a number of years. In 1939 he was Vice President of the State Society. Dr. Hartwell served on the staffs of St. Francis, Memorial, and Glockner Penrose Hospitals.

### PETER OLIVER HANFORD

Dr. Peter Oliver Hanford, aged 86, died on October 4, 1957, in Colorado Springs. He was graduated from the Denver College of Medicine in 1898 and started practicing in Colorado Springs in 1900.

Dr. Hanford was the founder of the Colorado



Financial World Annual Awards—Paul A. Clayton, M.D. (left), President of the Medical Service Bureau of the Utah State Medical Association, Salt Lake City, receives the bronze "Oscar of Industry" award for the best 1956 annual report, from Richard J. Anderson, Editor and Publisher, Financial World, at the Financial World Thirteenth Annual Awards Banquet, held in New York. At right is Lewis G. Hersey, Executive Director of the Medical Service Bureau of the Utah State Medical Association, who is holding another award in the same category.

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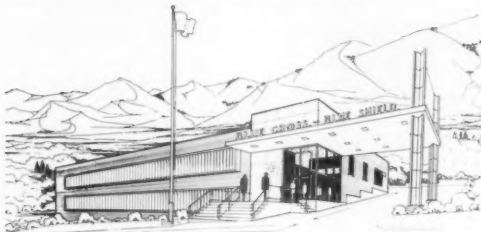
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## BLUE CROSS BLUE SHIELD

### Blue Cross-Blue Shield building



Announcement of construction plans for the new Blue Cross-Blue Shield office building, 2455 Parleys Way, Salt Lake City, was made by the Presidents of both organizations, Sister Hilary, Blue Cross, and Dr. Paul A. Clayton, Blue Shield. The necessity of an adequate location has become urgent. Three different locations house the operations at the present time. In addition, Blue Cross-Blue Shield has more than 155,000 Utahns enrolled and the existing quarters are inadequate for this continuing growth. This two-level building will be entirely adequate for present consolidation and future expansion. Scheduled for occupancy about July, 1958, the new building will provide ample parking facilities.



## MEDICAL SCHOOL NOTES

### Applied medical science course in physical medicine and rehabilitation

The University of Colorado School of Medicine will present a course in applied medical science in Physical Medicine and Rehabilitation during the winter quarter, beginning Monday evening, January 6, 1958, and every Monday thereafter for a total of thirteen weeks.

The course is designed to present the basis for

and the use of various procedures and technics in physical medicine diagnosis of acute and chronic diseases. The practical aspect will be stressed so that the material should be of value to the practicing physician. It is also designed for resident groups in various specialties so that they will have a better concept of how to use physical medicine in the diagnosis and treatment of patients. Registration will be limited to twenty-five students. For further information and application, write to the Office of Postgraduate Medical Education, University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, Colorado.

### General practice review, University of Colorado School of Medicine January 13-18, 1958

This annual six-day postgraduate course is designed to offer a broad review and a discussion of highlights of new developments of importance in the general practice of medicine. One day will be devoted to each of six areas of practice as follows: Monday—Medicine; Tuesday—Pediatrics; Wednesday—Surgery; Thursday—Laboratory Medicine and Radiology; Friday—Obstetrics and Gynecology; Saturday—Trauma.

Physicians who are unable to attend the entire course may register for selected days of their choice.

Further information and a complete program may be obtained by writing to: Office of Postgraduate Medical Education, University of Colorado School of Medicine, 4200 East Ninth Avenue, Denver 20, Colorado.

### How to save Federal Income Taxes through the use of a simple reversionary trust

LeRoy B. Evans  
President, Dow Theory Forecasts, Inc.  
Hammond, Indiana

One of the doctor's most pressing financial problems today is his high Federal Income Tax.

He would like to reduce it without reducing his earnings . . . and while this seems like "pie-in-the-sky," it can be done through the use of a simple reversionary trust with the income payable to and taxable to the beneficiary.

For years, trusts have been widely used for tax and other purposes; the reversionary trust is relatively new, however, and trusts that transfer



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the tax liability to the beneficiary are downright rare.

The reversionary trust differs from the standard trust in that the corpus (body) of the trust reverts back to the donor after a period that cannot be less than ten years.

This enables an individual who does not need the income from certain investments to divert that income to a beneficiary for a period not less than ten years, and, after that time, receive back his original investment.

Then, if the trust is properly drawn, the beneficiary is also made responsible for the tax which can mean the difference between a minimum 20 per cent tax which the trust would ordinarily pay and no tax at all because of the beneficiary's normal tax exemption.

Thus, the simple reversionary trust becomes one of the most effective legitimate opportunities for a doctor temporarily to shift to others some of his investment income, and, more important, also the tax burden that goes with it.

*Ideal for parents*

This simple reversionary trust is ideal for parents with young children who will later go to college and for those with dependents with little or no income of their own.

For example, on an investment yielding \$500 annually, a doctor in the 50 per cent bracket would have to pay \$250 tax . . . but his son or daughter would not have to pay any tax at all if they received the \$500 and didn't have too much other income.

Since any taxpayer can have taxable income up to \$675 without having to pay any Federal Income Tax, and because \$50 of the dividend income would be non-taxable, the annual dividend income to the beneficiary could be up to \$725 per year, reduced by income from other sources, if any, without his having to pay any Federal Income Tax.

If the beneficiary is your child under 19 (or a child in school, regardless of age) and you furnish over half of that child's support, you would not lose the dependency exemption for that child because of the trust income. However, if the beneficiary is an adult dependent other than the above, then it is recommended that the beneficiary's gross income from all sources be less than \$600 per year to prevent loss of dependency exemption.

Here is a table showing how much more you would have to invest or how many times the rate of return you would need to accomplish results equal to this trust.

If your Tax Bracket is	Amount you would need to earn to clear \$600 after Federal Income Taxes.	Without this trust, you would have to invest the following number of times as much money (at any given rate of return) to clear the same amount (up to \$600 per year).	If you have a specified amount to invest, without this trust you would have to earn the following number of times the rate of return of the trust to clear the same amount (up to \$600).
30%.....	857.14	1.42	1.42
40%.....	1,000.00	1.66	1.66
50%.....	1,200.00	2.0	2.0
60%.....	1,500.00	2.5	2.5
70%.....	2,000.00	3.33	3.33
80%.....	3,000.00	5.0	5.0

*What to use as corpus of trust*

Practically anything can be used as the corpus or body of a reversionary trust. A mutual fund is very suitable as it provides a broad investment program in one security under the supervision and management of professional analysts; it is simple to use in a trust and, since most funds are composed largely of common stocks, it also provides a hedge against inflation.

The value and dividends on the shares will increase or decrease with changes in market value and income of the investments in the fund, of course, but the management has the responsibility of managing the fund to meet changing conditions, to the best of its ability.

This is very important since a reversionary trust must run a period not less than ten years.

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#### How much to put in trust

A trust can be written with a corpus of any amount from \$1 to \$1 million, or more. It all depends on how much income is to be diverted to the beneficiary. However, there is usually a minimum charge made for the administrative work of the trust officer (usually \$25 or \$50 annually, depending on locality and the policy of the bank) and, therefore, trusts of at least \$5,000 would seem advisable.

But whatever amount is used, the donor should proceed with care as any investment that results in lower taxes is usually carefully scrutinized by the Internal Revenue Department; this is especially true of a trust such as discussed here which makes the income taxable to the beneficiary and not to the trust.

The simple reversionary trust holds important opportunities for tax savings but all benefits can be thrown away by a wrong sentence, phrase or even a single inadvisable word in the trust instrument. This is truly a time when the phrase "investigate—then invest" is appropriate.

#### 1957 survey of county medical societies

Replies to the questionnaires sent to county medical societies concerning their activities and programs have been tabulated and published in booklet form by the AMA's Council on Medical Service. The booklet, "1957 Nationwide Survey on

County Medical Society Activities," contains information on types of county medical society programs (such as emergency call systems or grievance committees), fee schedules, life insurance, attendance at meetings and dues. Copies will be sent to all county and state medical societies. Additional copies may be secured from the Council.

#### Allergic reaction possible from Asian influenza vaccine

The American Foundation for Allergic Diseases cautioned physicians and their patients that allergic reactions may occur occasionally among those who are given the newly developed vaccine against Asian influenza unless precautions are taken against such reactions. Only a few thousand people out of the millions who may receive the vaccine are likely to be allergic to it, the Foundation pointed out, and most of the allergies will represent a sensitivity to egg protein. Reactions in most cases will be merely annoying, but a few people have extreme sensitivity to the egg protein that is found in some vaccines.

It is the responsibility of the physician to ascertain if the patient is allergic, and to what degree. Such an allergy may occur in persons of all ages but is more common in young children. Reactions do not seem to occur more frequently in individuals known to be allergic unless these persons are specifically sensitive to egg protein.

This protein is present in the vaccines because they are prepared by culturing viruses in eggs. Sensitivity to the injection usually will be evidenced by a mild and purely local reaction, consisting of itching and swelling at the site of injection, but it may be a generalized reaction with hives, asthmatic symptoms and occasionally shock. Physicians should routinely keep antidotes to the allergic reaction close at hand.

In reminding the egg-allergic individual not to take the vaccine if his physician feels the allergic hazard is greater than the risk from influenza, the Foundation added that the great majority of people will experience no reaction at all from the injection. The influenza vaccine is particularly safe because it is a "killed virus" vaccine.

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## A medical potpourri

Compiled by Andrew M. Babey, M.D., Las Cruces, New Mexico

"The second type of general practitioner (with one year's internship) who emerges after a few years becomes possessed of a personality trait that we might call 'hypocritical arrogance.' He does not realize his own limitations and capabilities, often attempting procedures in his office or even in a hospital to the detriment of his patient and the embarrassment of his colleagues." Dr. W. B. Hildebrand, J.A.M.A., April 27, 1957, page 1589.

"No residency in internal medicine or in general practice has been devised that will guarantee that we do not have some rule-of-thumb, cookbook physicians who never read, never go to meetings, and are only interested in a big patient volume of quick turnover and easy money." Dr. Wm. B. Dean, Loc. cit., page 1593.

"A general practitioner once said to me, 'Why

should I not do my own gallbladder surgery when there are so many well-qualified specialists to correct my mistakes?" Dr. Chas. B. Puestow, Loc. cit., page 1594.

"In hospitals uncritical use of antibiotics for every imagined reason, and for none at all, has so led to the replacement of sensitive staphylococci by naturally resistant and apparently harder strains which are normal inhabitants of the nose—even of people who have been treated with an antibiotic. This is the heart of the problem." The Lancet, April 6, 1957, page 723.

"Even smoking a single cigarette may produce a recurrence of gangrene of an extremity in a patient with thromboangiitis obliterans." Practitioners' Conferences, Edited by Claude E. Forkner, Volume 1, page 44.

continued on 1352

when anxiety and tension "erupts" in the G. I. tract...

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# New Chemotherapy

# ARALEN<sup>®</sup> in RHEUMATOID ARTHRITIS

*Extensive studies of rheumatoid arthritis and related collagen diseases—in this country and abroad—have shown the antimalarial Aralen phosphate to be highly effective and well tolerated in a large percentage of patients.*

## Clinical Results with Aralen in Rheumatoid Arthritis

Author	No. of Cases	Major Improvement	Minor Improvement	No Effect
Haydu <sup>1</sup>	28	22	5	1
Rinehart <sup>2</sup>	25	12	4	9
Freedman <sup>3</sup>	50	43	3	4
Bagnall <sup>4</sup>	108	77	12	19
Bruckner <sup>5</sup>	36	32	0	4
Cohen and Calkins <sup>6</sup>	22	17	3	2
Scherbel et al. <sup>7</sup>	25	9	8	8
Total	294	212 (72%)	35 (12%)	47 (16%)

- Success dependent upon persistent treatment
- Often of benefit where other agents have failed
- Remissions on therapy well maintained
- Remission of 3 to 12 months possible even if treatment is interrupted
- Tachyphylaxis not evident

### GENERAL EFFECTS:

- Patient feels better
- Patient looks better
- Exercise tolerance increases
- Walking speed and hand grip improves

### LABORATORY EFFECTS:

- E. S. R. may fall slowly
- Hemoglobin level may gradually rise

### ANALGESICS AND STEROIDS:

- Requirements usually reduced or eliminated

### JOINT EFFECTS:

- Pain and tenderness relieved
- Mobility increases
- Swellings diminish or disappear
- Muscle strength improves
- Rheumatic nodules may disappear
- Even severe or advanced deformity may improve
- Active inflammatory process usually subsides
- Joint effusion may diminish

### DOSAGE:

Aralen is cumulative in action and requires four to twelve weeks of administration before therapeutic effects become apparent.

Latest information indicates that an initial daily dose of 250 mg. of Aralen phosphate is preferable to the higher doses sometimes recommended. However, if side effects appear, withdraw Aralen for several days until they subside. Reinstate treatment with 125 mg. daily and, if well tolerated, increase to 250 mg. The usual maintenance dose is 250 mg. daily.

# New Chemotherapy

## INDICATIONS:

- Rheumatoid arthritis, acute or chronic—with or without adjunctive therapy.
- Spondylitis
- Arthritis associated with lupus erythematosus or psoriasis

## HOW SUPPLIED:

**Aralen phosphate:** 250 mg. tablets in bottles of 100 and 1000.  
125 mg. tablets in bottles of 100.

## Tolerance:

Aralen is usually well tolerated. Toxic effects are usually mild and to date have been transitory in nature, disappearing completely either on continuance or cessation of therapy or on reduction in dosage.

Gastrointestinal disturbances (e.g. nausea, rarely vomiting, diarrhea, abdominal cramps, anorexia) are frequent manifestations of intolerance. Temporary blurring of vision (due to interference with accommodation) is also relatively frequent.

Pleomorphic skin eruptions (e.g. lichenoid, maculopapular, purpuric), although generally mild, may preclude the use of an optimum dosage schedule. If a skin reaction persists on a reduced dosage schedule, or recurs after reinstitution of treatment with gradually increasing doses, discontinue Aralen till the lesion again disappears and consider resuming treatment with Plaquenil® (brand of hydroxychloroquine).

Less frequently transitory vertigo, headache, lassitude, or neurological disturbances, such as nervousness, irritability, emotional change, and nightmares have been reported. Instances of unexplained slight gradual weight loss as the patient's general health and arthritic condition improved have been mentioned. Occasional instances of bleaching (depigmentation) of the hair have been described.

Although an occasional instance of leukopenia, with normal differential count, has been reported (WBC about 3000), it has not proved troublesome because it has always been reversible on discontinuance, or diminution of the dose. Even spontaneous reversal may occur while full dosage is maintained.

## THEORY OF ACTION:

Aralen appears to suppress or induce remission of rheumatoid inflammatory processes by inhibiting adenosinetriphosphatase.

## Caution:

Aralen is known to concentrate in the liver and, although hepatic damage has never been reported, the drug should be used with caution in the presence of liver disease. In the presence of severe gastrointestinal, neurological, or blood disorders, the drug should be used with caution or not at all. If such disorders occur during the course of therapy, the drug should be discontinued. Concomitant use of gold or phenylbutazone with Aralen should be avoided because of the tendency of these agents to produce drug dermatitis.

## Clinical Comments:

Of fifty patients receiving Aralen therapy, "43 have become really well; that is, they have no stiffness, and any pain that occurs can reasonably be attributed to use of joints affected by secondary degenerative changes. They have no evidence of joint inflammation, but may have a raised erythrocyte sedimentation rate. They have little or no need for analgesics."

Freedman<sup>1</sup>

"One hundred and twenty-five private patients have been carefully followed clinically and haematologically while receiving well over 200 patient-years of chloroquine [Aralen] therapy. The results are considered good in 70%, one-half of these cases being in remission. Improved work performance, sedimentation rate, and hemoglobin levels paralleled the major objective gain in this 70%. 90% of them remained on chloroquine [Aralen] therapy, half for more than two years. Classical peripheral rheumatoid arthritis, spondylitis, arthritis of juvenile onset, and rheumatoid disease with psoriasis, all appeared to respond about equally well.

"It is suggested that chloroquine comes closer to the ideal for long-term, safe, control of rheumatoid disease than any other agent now available."

Bagnall<sup>4</sup>

"Out of the 36 rheumatoid arthritis cases we treated . . . favorable results were obtained in 32 cases."

Bruckner et al.<sup>5</sup>

## References

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7. Scherbel, A. L., Schuchter, S.L., and Harrison, J.W.: Comparison of effects of two antimalarial agents, hydroxychloroquine sulfate and chloroquine phosphate, in patients with rheumatoid arthritis, *Cleveland Clin. Quart.* 24:98, April, 1957.

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*As you like it . . .* cont. from 1349

"We, too, have seen fatal cases with normal spinal fluids. I think 6 or 8 per cent of our cases with true paralytic poliomyelitis have had normal spinal fluids." Dr. Paul R. Paul, Loc. cit., page 203.

"If I have made a definite diagnosis (of polio) I keep the youngster in bed pretty much for three weeks. I give bathroom privileges before that time, and I think perhaps the privilege to sit in a chair, but he is quiet for three weeks, and then another two weeks before I get him back to full activity, even in the nonparalytic cases." Dr. Philip M. Stimson, Loc. cit., page 237.

"The dictum ascribed to Finney that 'anybody can amputate a leg, but it takes a good surgeon to shave one.' " Peripheral Vascular Disorders, Dr. P. Martin, et al., Livingstone, Ltd., Edinburgh and London, 1956, page 782.

"But the most insidious danger of all, according to Dickel and Dixon, is the sickness of a society which ranks the attainment of tranquility, the freedom from anxiety, as its central aim. Throughout history 'tension, alertness, alarmedness, fear, worry, anxiety and apprehension have been, are, and always will be important elements in the shaping of progress.' But the new philosophy tells us that fear and anxiety are evidence of illness and require medical treatment with the latest

soothing drug." The Lancet, April 13, 1957, page 776.

"When a patient on anticoagulant therapy is receiving antibiotics such as aureomycin or terramycin, there may be a sudden rise in the prothrombin time due to the fact that the vitamin K production in the intestinal tract, which ordinarily acts as an inhibiting factor for the anticoagulants, has been interfered with." Dr. Irving S. Wright, Practitioners' Conference, Edited by Claude E. Forker, Volume 1, page 82.

"Malignancy is a notorious cause of an increase in resistance to anticoagulant therapy, particularly malignancy of the pancreas and of the liver. We have seen it arise in cases of malignancy of the cervix, the lungs, and elsewhere. Whenever a patient in the middle years is very resistant to anticoagulant therapy, and particularly if he has recurrent thrombophlebitis, be on your guard and look for possible hidden malignancy." Dr. Irving S. Wright, loc. cit., page 82.

"I would like to point out that a clotting time is an extremely inaccurate estimate of the clotting potentialities of the blood, especially if it is done in a glass tube. It becomes more accurate if you use some of the plastic preparations or paraffin tubes, because glass apparently injures the platelets and other components of the blood producing a marked increase in clotting tendency." Dr. Irving S. Wright, loc. cit., page 84.

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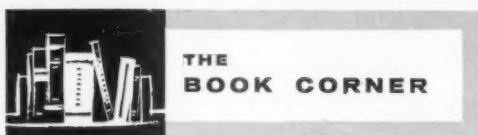
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## New Books Received

New books received are acknowledged in this section. From these, selections will be made for reviews in the interests of the readers. Books here listed will be available for lending from the Denver Medical Library soon after publication.

**The Function of the Ureter and Renal Pelvis:** By Fredrik Kilil, M.D. (Oslo, Norway). Philadelphia, W. B. Saunders Co., 1957. Price: \$7.50.

**The Principles and Practice of Diathermy:** By Bryan O. Scott (Oxford, England). Philadelphia, W. B. Saunders Co., 1957. Price: \$5.00.

**Psychopathic Personalities:** By Harold D. Palmer, M.D. N. Y., Philosophical Library, 1957. Price: \$4.75.

**Extensive Exposure:** By Arnold K. Henry (Dublin, Ireland). 2nd edition. Baltimore, Williams & Wilkins Co., 1957. Price: \$10.00.

**Bedside Diagnosis:** By Charles Seward, M.D., F.R.C.P. 4th edition. Baltimore, Williams & Wilkins Co., 1957. Price: \$5.00.

**Handbook of Orthopaedic Surgery:** By Alfred Rives Shands, Jr., B.A., M.D. 5th edition. St. Louis, C. V. Mosby Co., 1957. Price: \$9.75.

**Clinical Toxicology of Commercial Products:** By M. N. Gleason, R. E. Gosselin and H. C. Hodge. Balt., Williams & Wilkins, 1957. Price: \$16.00.

**It Pays to Be Healthy: A World Renowned Physician Guides You to Success, Happiness and Health in Your Work:** By Robert Collier Page, M.D. N. Y., Prentice-Hall, 1957. Price: \$4.95.

**Technique of Fluid Balance:** By Geoffrey H. Tovey, M.D. (Bristol, England). Springfield, Charles C Thomas, 1957. Price: \$2.50.

**From Sterility to Fertility: A Guide to the Causes and Cure of Childlessness:** By Elliot E. Philipp, M.A., M.B., B. Chir., F.R.C.S., M.R.C.O.G. N. Y., Philosophical Library, 1957. Price: \$4.75.

**Current Surgical Management:** Edited by John H. Mulholland, M.D., and others. Phila., W. B. Saunders, 1957. Price: \$10.00.

**One Surgeon's Practice:** By Frederick Christopher, M.D. Phila., W. B. Saunders, 1957. Price: \$4.00.

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## The Colorado State Medical Society

*Midwinter Clinical Session*  
February 18-21, 1958, Denver

**OFFICERS—1957-1958**—Terms of Officers and Committeemen expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1958 Annual Session.

**President:** Gatewood C. Milligan, Englewood.

**President-elect:** John Zarit, Denver.

**Vice President:** C. C. Wiley, Longmont.

**Treasurer (three years):** William C. Service, Colorado Springs, 1959.

**Constitutional Secretary (three years):** Harry C. Hughes, Denver, 1960.

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## The Utah State Medical Association

*Annual Session September 10-12, 1958,*  
*Salt Lake City*

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